

Federal Minimum Wage, Tax-Transfer Earnings Supplements, and Poverty

Updated April 2, 2014

Congressional Research Service

<https://crsreports.congress.gov>

R43409

Summary

Pending before Congress is legislation (S. 1737 and H.R. 1010) that would raise the federal minimum wage from its current \$7.25 per hour to, ultimately, \$10.10 per hour. The minimum wage would be adjusted for inflation thereafter. Whether the minimum wage or alternative policies, namely government-funded earnings supplements such as the Earned Income Tax Credit (EITC), are more effective in addressing poverty has been long debated.

The minimum wage affects workers regardless of their family status. A full-time, year-round worker at the current minimum wage would gross \$15,080 in the year. A worker's poverty status, however, depends on family circumstance, specifically family size. A single full-year, full-time worker earning the current federal minimum wage would have gross earnings above the 2014 poverty guidelines, but the same worker in a family of two or more people would have gross earnings that fall below these guidelines.

The federal tax system and government benefit programs take into account family circumstances in determining tax liabilities and benefits. Therefore, minimum wage and earnings supplement policies have differing impacts, depending on a worker's family type. The main distinction is the presence of children in the family. Low-wage workers heading families with children receive considerable benefits from federal income tax credits and Supplemental Nutrition Assistance Program (SNAP) food assistance. Childless singles do not benefit from refundable tax credits as do households with children. The effect of federal tax and SNAP benefits is to partially mitigate differences in net incomes relative to poverty among the family types.

An increase in the minimum wage would boost gross earnings and increase the net incomes of families with a worker employed full-time, all year earning the minimum wage. However, because the federal tax system is progressive and need-tested benefits pay more to families with less income, the income boost would be less than \$1.00 for each \$1.00 increase in gross earnings, as workers pay more taxes and lose some benefits. The degree to which workers would gain net income because of a minimum wage increase also differs by family type.

The impact of an increase in the minimum wage on the well-being of minimum wage workers depends in great part on whether the wage increase would cause a loss in employment. Some economic studies have found that increases in minimum wages cause job loss; other economic studies have found no such job loss. A previous consensus that increasing the minimum wage reduces employment, at least among teenagers, has been challenged by numerous recent studies suggesting little or no dis-employment effects of minimum wage increases. However, the debate over the employment effects of the minimum wage is likely to continue.

There are also some considerations to expanding government-funded earnings supplements, such as the EITC, child tax credit, and SNAP. Expanding these earnings supplements would result in costs to the federal budget. In addition, these programs too might affect the labor market, albeit in ways different from a minimum wage increase. Research has provided evidence that the EITC has increased the number of workers in the labor market. Through the operation of supply and demand, this could suppress wage rates. Since all workers do not qualify for earnings supplements through the EITC, the child tax credit, or SNAP, lower-wage workers who do not receive them might be harmed economically. There has been some recent attention to considering minimum wage policies and earnings supplements as complementary, rather than alternative, policies.

Contents

Introduction	1
Plan of this Report.....	1
Taxes and Benefits Not Addressed in this Report	2
Minimum Wage Policy under the Fair Labor Standards Act.....	2
Gross Earnings at the Minimum Wage Relative to Poverty, By Family Type.....	3
Federal Taxes and SNAP	5
Federal Payroll Taxes	6
Federal Income Tax Liability	6
The Earned Income Tax Credit	6
Child Credit.....	7
SNAP	7
Net Income at the Minimum Wage Relative to Poverty, By Family Type	8
Net Income of Minimum Wage Workers, By Family Type, in 2014.....	8
Raising the Minimum Wage in 2016.....	10
Projected Gross and Net Income in 2016 Under Current Law	11
Projected Gross Earnings and Net Income in 2016 Under a Minimum Wage of \$10.10 per Hour	12
Increase in the Minimum Wage and Poverty	15
Considerations Related to Raising the Minimum Wage.....	16
Employment Effects.....	17
Targeting Those Most In-Need.....	20
Other Impacts	20
Considerations Related to Alternatives to Raising the Minimum Wage.....	20
The Budget Costs of Earnings Supplements	21
Work Incentives and Disincentives	22
Ongoing Income Support Versus Tax Refunds	23
Potential Impact on Wages and Income	23
Concluding Thoughts	24

Figures

Figure 1. Gross Earnings for a Worker Earning \$7.25 per Hour Working Full-Time, Full-Year, Ratio to the 2014 Federal Poverty Guidelines by Family Type	5
Figure 2. Ratio of Net Income to Poverty Guidelines of a Full-Year, Full-Time Minimum Wage Worker, By Family Type in 2014	10
Figure 3. Projected Net Income of a Full-Year, Full-Time Minimum Wage Worker Relative to Poverty at \$7.25 per Hour and at \$10.10 per Hour, by Family Type in 2016.....	15
Figure A-1. Earned Income Tax Credit (EITC) Schedule, by Filing Status and Number of Children: 2014.....	27
Figure A-2. Selected Annual Benefits and Taxes by Gross Earnings Level, Single Parent with One Child, 2014	29

Figure A-3. Net Annual Income Relative to Gross Earnings, Single Parent with One Child, 2014	31
Figure A-4. “Implicit” Marginal Tax Rate (MTR) by Gross Earnings Level, Single Parent with One Child, 2014	33
Figure A-5. Average “Implicit” Tax Rate by Gross Earnings Level, Single Parent with One Child, 2014	35

Tables

Table 1. 2014 Poverty Guidelines for the 48 Contiguous States and the District of Columbia	4
Table 2. Earned Income Tax Credit: Maximum Credits and Income Levels Where the Credit Phases Out: 2014	7
Table 3. Gross Earnings and Net Income of a Full-Time, Full-Year Minimum Wage Worker (\$7.25 per Hour), By Family Type in 2014	9
Table 4. Gross Earnings and Projected Net Income of a Full-Year, Full-Time Minimum Wage Worker at (\$7.25 per hour), by Family Type in 2016	11
Table 5. Ratio of Projected Gross Earnings and Net Income to Poverty Level Income for a Full-Year, Full-Time Minimum Wage Worker at \$7.25 Per Hour, by Family Type, 2016	12
Table 6. Gross Earnings and Projected Net Income of a Full-Time, Full-Year Minimum Wage Worker (\$10.10 Per Hour), by Family Type in 2016	13
Table 7. Changes in Gross Earnings and Net Incomes from an Increase in the Minimum Wage from \$7.25 to \$10.10 per Hour, 2016	14
Table 8. Ratio of Net Income Relative to Poverty-Level Income for Full-Year, Full-Time Minimum Wage Workers: 2014 at Current Minimum Wage and 2016 Under Current Law Minimum Wage (\$7.25 per Hour) or a \$10.10 per Hour Minimum Wage	16
Table 9. Selected Benefits to Low-Income Families Not Based on Being Aged or Disabled, For Families with Earnings and Those without Earnings: FY2011	22

Appendixes

Appendix. Implicit Marginal Tax Rates	25
---	----

Contacts

Author Information	35
--------------------------	----

Introduction

An increase in the federal minimum wage has been one of several alternative policy proposals that have been offered to address poverty. Pending before the 113th Congress is legislation, S. 1737 (Senator Harkin) and H.R. 1010 (Representative Miller), that would raise the federal minimum wage from its current law \$7.25 to, in three steps, \$10.10 per hour. If these bills were enacted in 2014, the minimum wage would rise to \$10.10 per hour sometime in 2016. The minimum wage would be adjusted for inflation thereafter.

An expansion of the Earned Income Tax Credit (EITC) is an often-mentioned alternative to raising the minimum wage. The EITC currently supplements the wages of low-wage workers, mostly low-wage parents with children. Low-wage workers with children may receive additional income supplements through the child tax credit, and might qualify for certain need-tested government benefits such as the Supplemental Nutrition Assistance Program (SNAP, formerly known as food stamps).

If Congress sought to pursue an increase in incomes for low-wage earners, there is a debate over whether increases in the minimum wage or expansions of government aid through the tax system or benefit programs are more effective in helping low-income families and addressing poverty. The minimum wage affects workers regardless of their family status; the federal tax system and government benefit programs take into account family circumstances in determining tax liabilities and benefits. Therefore, minimum wage and earnings supplement policies have differing impacts, depending on a worker's family type.

Plan of this Report

This report focuses on the impact of minimum wage and tax-transfer earnings supplements for workers of different family types. It does so through illustrating how the minimum wage and federal tax-transfer policies affect the income of a minimum wage worker who works full-time, full-year in four different family types: a single childless worker; a worker supporting a married couple; a single mother with two children; and a married couple with one child. These family types are chosen to highlight the different treatment federal tax-transfer policies have on workers of different family types. They were *not* chosen as representative of most minimum wage workers. The illustrations show the impact of policies on two childless workers—one married, one not. They also show the impact of two workers with children—one married, one not. The report highlights how policies differ between families with children, and families without children. This report supplements these illustrations with some background on policies, as well as some policy considerations that apply generally to debates on the minimum wage and tax-transfer policies.

Full-year, full-time work at the minimum wage is not common. In 2012, 32% of workers earning the minimum wage worked full-time.¹ Again, the illustrations were not chosen to be representative of most minimum wage workers. Full-time, full-year work was chosen for illustrative purposes. Additionally, the income produced by full-time, full year work at the minimum wage is an important policy benchmark, as it reflects the federally-determined minimum income for someone with full-time involvement in the labor force.

This report

¹ This information also represents monthly data, so it is not possible to determine how many of these workers were employed all year at the minimum wage. See U.S. Department of Labor, Bureau of Labor Statistics, *Characteristics of Minimum Wage Workers 2012*, February 26, 2013. <http://www.bls.gov/cps/minwage2012.pdf>.

- describes current law minimum wage and tax-transfer earnings supplement policies;
- provides the illustrations of gross earnings and net income (after taxes and SNAP benefits) for full-time full-year minimum wage workers at both the current minimum wage (\$7.25 per hour) and the proposed \$10.10 minimum wage; and
- discusses some of the policy implications of addressing poverty through both the minimum wage and federally-funded earnings supplements.

Taxes and Benefits Not Addressed in this Report

This report does not address all potential taxes and benefits for which a minimum wage worker might be eligible. For example, housing assistance and assistance funded through the Temporary Assistance for Needy Families (TANF) were not considered. These programs are not entitlements to individuals and affect a relatively small population. This report also does not consider state taxes and benefits; they vary by state.

Further, the report does not consider health care benefits and subsidies, and in particular, this report excludes the health care premium subsidies provided under the Affordable Care Act of 2010. These subsidies further depend on individual circumstances (e.g., if employer-provided health care is available for the family's earner). Consideration of health care premiums and benefits would greatly complicate the analysis.

Minimum Wage Policy under the Fair Labor Standards Act

The Fair Labor Standards Act (FLSA), enacted in 1938, is the federal legislation that establishes the general minimum wage that must be paid to all covered workers.² In general, the FLSA mandates broad minimum wage coverage. It also specifies certain categories of workers who are not covered by FLSA wage standards, such as workers with disabilities or certain youth workers.³

In 1938, the FLSA established a minimum wage of \$0.25 per hour. The minimum wage provisions of the FLSA have been amended numerous times since then, typically for the purpose of expanding coverage or raising the wage rate. Since its establishment, the minimum wage rate has been raised 22 separate times. The most recent change was enacted in 2007 with P.L. 110-28, which increased the minimum wage from \$5.15 per hour to its current rate of \$7.25 per hour in three steps.

² In addition, the FLSA provides for overtime pay and child labor protections. The scope of this report only includes the minimum wage provisions of the FLSA. For a broader overview of the FLSA, see CRS Report R42713, *The Fair Labor Standards Act (FLSA): An Overview*, by Gerald Mayer, Benjamin Collins, and David H. Bradley.

³ 29 U.S.C. §206(a). The FLSA extends minimum wage coverage to individuals under two types of coverage—"enterprise coverage" and "individual coverage." An individual is covered if they meet the criteria for either category. Around 130 million workers, or 84% of the labor force, are covered by the FLSA. For additional explanation of the two categories of coverage, see CRS Report R43089, *The Federal Minimum Wage: In Brief*, by David H. Bradley. Also: U.S. Department of Labor, Wage and Hour Division, *Coverage Under the Fair Labor Standards Act (FLSA)*, Fact Sheet #14, Washington, DC, July 2009, <http://www.dol.gov/whd/regs/compliance/whdfs14.pdf>. Because some individuals are exempt from the minimum wage provisions of the FLSA, the number of workers covered by the minimum wage provisions is presumably lower.

Since the late 1960s, increases in the minimum wage have not kept up with increases in consumer prices. That is, the purchasing power of income earned by a minimum wage worker has declined. For example, the February 1968 minimum wage of \$1.60 would be “worth” in 2013 dollars \$10.69.⁴

The most recent data available indicate that there are approximately 3.6 million workers, or 4.7% of all hourly paid workers, whose wages are at or below the federal minimum wage of \$7.25 per hour. Of these 3.6 million workers, approximately 1.6 million earn the federal minimum wage of \$7.25 per hour and the other 2 million earn below the federal minimum wage. As the Bureau of Labor Statistics (BLS) notes, the large number of individuals earning less than the statutory minimum wage does not necessarily indicate violations of the FLSA but may reflect exemptions or misreporting.⁵

In addition to the FLSA minimum wage, states may also choose to set labor standards that are different from federal statutes. The FLSA establishes that if states enact minimum wage, overtime, or child labor laws more protective of employees than those provided in the FLSA, the state law applies. In the case of minimum wages, this means that if an individual is covered by the FLSA in a state with a higher state minimum wage, the individual is entitled to receive the higher state minimum wage. On the other hand, some states have set minimum wages lower than the FLSA minimum. In those cases, an FLSA-covered worker would receive the FLSA minimum wage and not the lower state minimum wage.

As of January 1, 2014, 21 states and the District of Columbia had minimum wage rates above the federal rate of \$7.25 per hour. These rates range from \$7.40 per hour in Michigan to \$9.32 in Washington state. On that date, 20 states had a minimum wage equal to the federal rate of \$7.25 per hour. Four states have minimum wage rates below the federal rate and five have no minimum wage requirement.⁶ In the states with no minimum wage requirements or wages lower than the federal minimum wage, only individuals who are not covered by the FLSA are subject to those lower rates.

Gross Earnings at the Minimum Wage Relative to Poverty, By Family Type

A person working full-time (40 hours per week) all year (52 weeks per year) at the current federal minimum wage of \$7.25 per hour earns a gross \$15,080 for the year. This is before taxes and any government benefits the individual might be entitled to receive. Gross earnings depend on hours worked and the wage rate paid to that individual.

However, full-year, full-time work at the minimum wage produces a different standard of living depending on the family circumstances of the worker. Larger families typically “need” more

⁴ See CRS Report R42973, *Inflation and the Real Minimum Wage: A Fact Sheet*, by Craig K. Elwell.

⁵ *Characteristics of Minimum Wage Workers: 2012*, This is an annual report on minimum wage workers using data from the Current Population Survey (CPS), which is a monthly household survey used to collect economic and demographic information on the population. The CPS does not ask respondents directly if they earn the minimum wage. Rather the estimate of workers at or below the federal minimum wage is derived from reported earnings on a person’s sole (or principal) job. As BLS notes, because the estimates are based on workers paid at hourly rates, with salaried and non-hourly workers excluded, “the actual number of workers with earnings at or below the prevailing minimum wage is undoubtedly understated.”

⁶ U.S. Department of Labor, Wage and Hour Division, *Minimum Wage Laws in the States*, <http://www.dol.gov/whd/minwage/america.htm>.

income to cover just the necessities of life (food, clothing, and housing), with a family's poverty status depending on both (1) its income; and (2) number of people in the family.

The greater financial need of larger families is reflected in the official federal poverty guidelines.

Table 1 shows the 2014 poverty guidelines (the Federal Poverty Level, or FPL) for family sizes of one through six.⁷

Table 1. 2014 Poverty Guidelines for the 48 Contiguous States and the District of Columbia

Family Size	Poverty Level
1	\$11,670
2	15,730
3	19,790
4	23,850
5	27,910
6	31,970
Each additional person	Add \$4,060

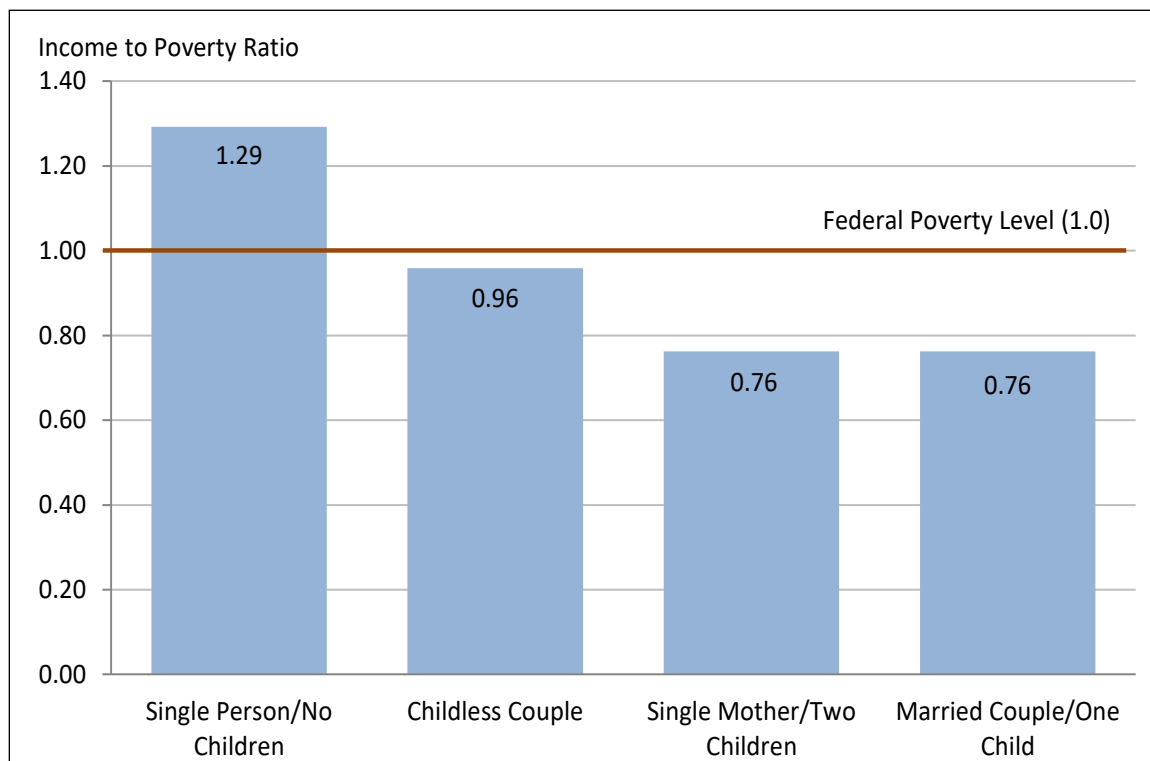
Source: U.S. Department of Health and Human Services. Available at <http://aspe.hhs.gov/poverty/14poverty.cfm>.

Notes: Different (higher) poverty guidelines apply for Alaska and Hawaii.

As shown in the table, a single (1 person) full-year, full-time worker earning the current federal minimum wage has gross earnings (\$15,080) above the estimated 2014 poverty guidelines. However, such a worker in a family of two or more people has gross earnings less than the 2014 poverty guidelines. **Figure 1** shows how gross earnings from full-time, year-round work relate to poverty-level income. These poverty ratios are shown for four different family types: a single, childless person; a childless couple; a single mother of two children; and a married couple with one child. It shows that gross earnings from full-time, year-round minimum wage work exceed poverty-level income only for the single, childless person. For the three other family types, gross earnings from full-year, full-time minimum wage work fall short of poverty level income.

⁷ The measurement of poverty has its own controversies. For a discussion, see CRS Report R41187, *Poverty Measurement in the United States: History, Current Practice, and Proposed Changes*, by Thomas Gabe.

Figure 1. Gross Earnings for a Worker Earning \$7.25 per Hour Working Full-Time, Full-Year, Ratio to the 2014 Federal Poverty Guidelines by Family Type



Source: Congressional Research Service (CRS) calculations.

Notes: Represents one worker earning \$7.25 per hour, working 40 hours per week, 52 weeks per year.

Federal Taxes and SNAP

The economic well-being of a family—the amount of goods and services it is able to consume—depends not on gross earnings, but on net income. Net income amounts to those dollars available to a family *after* taxes have been paid and government benefits have been received. For example, almost all earners pay Social Security taxes which reduce their take-home pay.

Federal income taxes also might reduce take-home pay. Under a progressive tax system, like the federal income tax, required tax payments are based on the ability to pay: families at higher level of earnings are taxed at a higher rate.⁸ However, more significant for *low-income* workers under the current federal tax system is whether allowed deductions, exemptions, and credits result in the family owing any federal income tax liability at all. Moreover, two key credits—the EITC and the child tax credit—are refundable. Refundable tax credits provide benefits to families even if they have no regular income tax liability. These benefits are paid through refund checks in the next calendar year.

Additionally, need-tested programs are, by definition, paid on the basis of financial need. Families with lower incomes are presumed to have more need than those with higher incomes.

⁸ For a discussion of the federal tax system and its relationship to “ability to pay” for different family types, see CRS Report RL33755, *Federal Income Tax Treatment of the Family*, by Jane G. Gravelle.

Thus, as incomes rise, need-tested benefits—like those from SNAP—decline. The EITC and child tax credit are also need-tested. Above a certain income threshold, their benefits begin to phase-out; that is, decline in value as incomes rise.

Federal Payroll Taxes

As with gross earnings, payroll tax liabilities do not vary with family circumstance. They are determined by the tax rate and gross earnings (wages times hours worked). In 2014, a worker faces a payroll tax rate of 7.65%. This is the combined tax rate for Social Security and Medicare payroll taxes. A full-time, year-round minimum wage worker would pay \$1,154 in payroll taxes in 2014.

Federal Income Tax Liability

Unlike gross earnings and the payroll tax, federal income tax liabilities are affected by family characteristics—family type, number of dependents, and other factors. The amount of federal tax owed for a full-year, full-time minimum wage worker will depend on any other income he or she has, as well as deductions, exemptions, and credits earned against taxes. For 2014, the personal exemption is \$3,950—the taxpayer gets to deduct that amount for himself or herself, as well as any dependents. Taxable income also depends on deductions taken by the taxpayer. For 2014, the standard deduction for a married couple filing a joint return may take a standard deduction of \$12,400; a single head of household may take a standard deduction of \$9,100; and a single person may take a standard deduction of \$6,200.

The Earned Income Tax Credit

The Earned Income Tax Credit (EITC) was first enacted in 1975 as a temporary measure to offset payroll taxes in the midst of the 1974-1975 economic downturn. The credit was made permanent by the Revenue Act of 1978 (P.L. 95-600). It was significantly expanded in the 1986 tax reform, as well as through tax legislation in 1990 and 1995, and has grown to be the largest form of cash assistance for low-income families with children.

The EITC is paid only to families that have earnings over a tax year. Additionally, it is a *refundable* credit that is paid even when families have no regular tax liability.

Table 2 shows some of the features of the EITC.⁹ It shows the maximum credit by number of children. For a worker with no children, the maximum EITC in 2014 is \$496. It is substantially more for families with children: \$3,305 for one child, and up to \$6,143 for families with three or more children. It also shows the “phase out” thresholds for the EITC: the income level where the credit begins to be reduced from the maximum (“credit begins to phase out”) and the income level at which the credit is entirely phased out and the taxpayer or family no longer receives an EITC. Note that for a single person with no children, the credit is completely phased out at \$14,590—an income level that is lower than earnings received by a full-year, full-time worker at the current minimum wage. On the other hand, families with children can receive the credit at much higher income levels. For example, EITC benefits do not completely phase out for a married couple with three children until annual income reaches \$52,427.

⁹ For background on the EITC, see CRS Report RL31768, *The Earned Income Tax Credit (EITC): An Overview*, by Christine Scott and Margot L. Crandall-Hollick.

Table 2. Earned Income Tax Credit: Maximum Credits and Income Levels Where the Credit Phases Out: 2014

	No Children	One Child	Two Children	Three or More Children
Maximum credit	\$496	\$3,305	\$5,460	\$6,143
Credit begins to phase out for single household heads	8,110	17,830	17,830	17,830
Credit completely phases out for single household heads	14,590	38,511	43,756	46,997
Credit begins to phase out for married couples	13,540	23,260	23,260	23,260
Credit completely phases out for married couples	20,020	43,941	49,186	52,427

Source: U.S. Department of the Treasury, Internal Revenue Service. *Internal Revenue Service Bulletin*, Bulletin No. 2013-47, p. 538-544.

Child Credit

The child tax credit was first created by the Taxpayer Relief Act of 1997 (P.L. 105-34). It has since been expanded, and now provides taxpayers with a credit against tax of up to \$1,000 per child. Additionally, the credit has been made refundable, so that even taxpayers with no regular federal income tax liability may receive what is termed the “Additional Child Tax Credit.” To qualify for the “Additional Child Tax Credit,” a taxpayer must have earnings of at least \$3,000, with the credit equal to 15% of earnings above \$3,000 up to a maximum of \$1,000 per child.¹⁰

SNAP

The Supplemental Nutrition Assistance Program (SNAP, formerly known as the Food Stamp Program) provides benefits to increase the ability of low-income households to purchase food. SNAP policy is generally predicated on households using 30% of their net income (after deductions for allowable expenses) for food.¹¹ The SNAP benefits make up any deficit between what is needed to purchase a low-cost but nutritionally adequate diet and 30% of net income. SNAP is administered by state and local welfare offices, but benefits are fully financed through federal funds. SNAP serves all types of households—those with elderly and disabled members, households with children, and non-aged, nondisabled adults without children. There are some restrictions for SNAP benefits for able-bodied adults without children, whose benefits are time limited (generally 3 months in a 36-month period) unless they either work or participate in employment activities for at least 20 hours per week. (This time limit may be waived in periods

¹⁰ For more information on the child tax credit, see CRS Report R41873, *The Child Tax Credit: Current Law and Legislative History*, by Margot L. Crandall-Hollick.

¹¹ See CRS Report R42505, *Supplemental Nutrition Assistance Program (SNAP): A Primer on Eligibility and Benefits*, by Randy Alison Aussenberg.

and places of high unemployment, and states have limited exemptions that can be provided to waive this limit for individual households.)

SNAP maximum benefits are uniform for the 48 states and District of Columbia, with higher maximums for Alaska and Hawaii. Benefits are based generally on federal rules for counting income and allowing deductions for certain expenses.

Net Income at the Minimum Wage Relative to Poverty, By Family Type

The net income of persons working at the minimum wage reflects the effect not only of minimum wage policy, but also of tax and benefit policies. This section illustrates the effect of the federal minimum wage, federal taxes, and Supplemental Nutrition Assistance Program (SNAP) benefits on the net income of families, and relates that net income to the official federal poverty guidelines by family type. It does so by illustrating the net income produced by full-time, full-year work at the federal minimum wage for the four types of families discussed in this report's introduction: a single person, married couple, single parent with two children, and a married couple with a child. Depicted families' net incomes are calculated based on their earnings, any federal income tax liabilities, and SNAP benefits. Because both federal taxes and SNAP benefits received by actual families depend on their individual circumstances, assumptions are made to compute taxes and benefits.¹²

Net Income of Minimum Wage Workers, By Family Type, in 2014

Table 3 shows the gross earnings, tax liabilities, tax credits, and SNAP benefits for the full-year, full-time workers at the current minimum wage of \$7.25 per hour, by family type. As shown in the table, the \$15,080 in gross earnings produce very different net incomes once tax and government policies based on family circumstances are considered.

The main distinction is the presence of children in the family. Families with children receive far larger earnings supplements from the federal income tax system than do families without children. Of the hypothetical full-time, year-round minimum wage workers shown in the table:

- The single person with no children has net income below gross earnings. In terms of need-tested benefits, this person qualifies only for a small SNAP benefit.¹³ This person is a net taxpayer.
- The worker supporting a childless couple receives a relatively small EITC and SNAP benefit—bringing its net income slightly (\$320 over the year) above gross earnings.

¹² It is assumed that individuals and families will benefit only from “standard” deductions and not from additional deductions for certain expenses (housing, medical, child care, etc.) that some families take under both the tax code and SNAP. Additionally, these illustrations use federal income eligibility rules for SNAP. A family must have gross income below 130% and net income below 100% of the poverty threshold to receive SNAP. States have the option of setting different income eligibility thresholds for SNAP by using an option called “broad-based categorical eligibility.” See CRS Report R42054, *The Supplemental Nutrition Assistance Program (SNAP): Categorical Eligibility*, by Gene Falk and Randy Alison Aussenberg.

¹³ The single adult without a child would qualify for the monthly minimum SNAP benefit, projected at \$15 for a household of one, beginning in October 2014. This person would be ineligible for SNAP for the first 9 months of the year because his or her gross income would exceed the SNAP gross income limit in effect through September 30, 2014.

- The single mother with two children has a net income considerably above gross earnings. Available tax credits and SNAP provide an almost \$9,000 earnings supplement for this family, raising its net income to \$24,096.
- The worker supporting a spouse and one child also receives earnings supplements from tax credits and SNAP. However, because the tax credits (earnings supplement) depend on the number of children in the family, this family's net income is less than that of the single mother with two children.

Table 3. Gross Earnings and Net Income of a Full-Time, Full-Year Minimum Wage Worker (\$7.25 per Hour), By Family Type in 2014

Income Considering Earnings, Federal Taxes, and Supplemental Nutrition Assistance Program Benefits

	Single Person/No Children	Childless Couple	Single Mother/Two Children	Married Couple/One Child
Gross earnings	\$15,080	\$15,080	\$15,080	\$15,080
Payroll tax liability	-1,154	-1,154	-1,154	-1,154
Federal income tax liability (before credits)	-493	0	0	0
Net earnings (earnings minus federal tax liabilities)	13,433	13,926	13,926	13,926
EITC	0	378	5,460	3,305
Child credit	0	0	1,812	1,000
SNAP	45	1,095	2,898	2,898
Net income	13,478	15,400	24,096	21,129

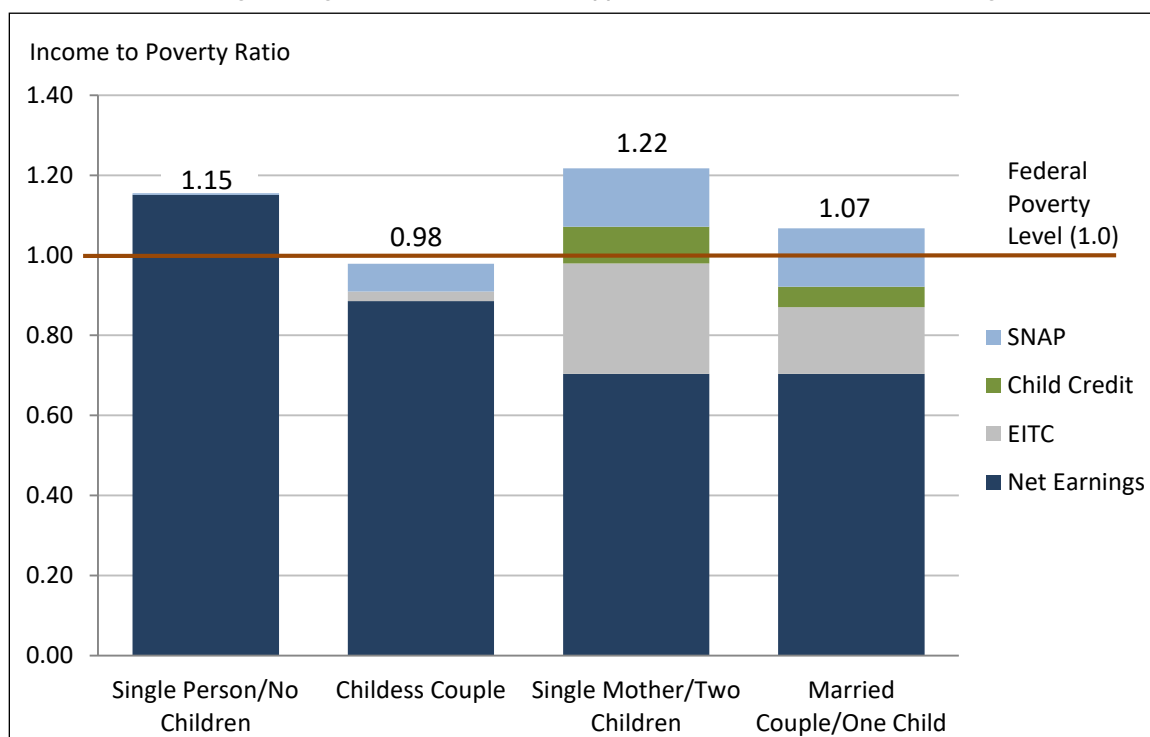
Source: Congressional Research Service (CRS) calculations based on case simulation.

Notes: Federal income tax calculations assume the tax filer takes a standard deduction and personal exemptions; no other deductions were assumed. For SNAP, the household is assumed only to take the standard deduction and receive the earned income disregard. No other deductions allowed under SNAP law are assumed. These figures assume a cost-of-living adjustment for SNAP on October 1, 2014, consistent with the Congressional Budget Office's (CBO's) February 2014 economic forecast and federal budget baseline.

Figure 2 shows how net income of full-year, full-time workers relates to poverty level income, by family type. Federal taxes and SNAP mitigate some of the differences in net income relative to poverty among different family types (compared to this measure as shown in **Figure 1**). However, there remain differences. Net income to poverty ratios for the single mother with two children are the highest among the families shown in the figure, higher than that for the married couple with one child. Both of these are 3-person families; however, both the EITC and the child tax credits for a family with two children are larger than the credits for a family with one child. The full-year, full-time, minimum wage worker supporting the childless couple, while qualifying for a SNAP benefit and owing no federal income tax liability, still has net income slightly below poverty.

Figure 2. Ratio of Net Income to Poverty Guidelines of a Full-Year, Full-Time Minimum Wage Worker, By Family Type in 2014

Income Considering Earnings, Federal Taxes, and Supplemental Nutrition Assistance Program Benefits



Source: Congressional Research Service (CRS) calculations based on case simulation.

Notes: Net earnings equal gross earnings minus payroll taxes and any regular federal income tax liability (before credits). Federal income tax calculations assume the tax filer takes a standard deduction and personal exemptions; no other deductions were assumed. For SNAP, the household is assumed only to take the standard deduction and receive the earned income disregard. No other deductions allowed under SNAP law are assumed. These figures assume a cost-of-living adjustment for SNAP on October 1, 2014 consistent with the Congressional Budget Office's (CBO's) February 2014 economic forecast and federal budget baseline.

Raising the Minimum Wage in 2016

The pending legislation would raise the minimum wage to \$10.10 per hour in several steps. Should either S. 1737 or H.R. 1010 be enacted in 2014, the minimum wage would rise to \$10.10 per hour in 2016. This section examines the impact on gross and net income of such a minimum wage increase in 2016. It compares gross and net incomes at the current law minimum wage of \$7.25 per hour with that resulting from a \$10.10 per hour minimum wage for the same four hypothetical family types discussed earlier in this report.

The illustrations in this section are made based on the Congressional Budget Office's (CBO's) February 2014 economic forecast. Under the forecast, consumer prices are expected to increase 1.8% in 2014 and 2.1% in 2015. These price increases would mean that the purchasing power of a dollar will be less in 2016 than in 2014. This means the purchasing power of income earned at the current \$7.25 per hour minimum wage will decline between 2014 and 2016. Additionally, the purchasing power of income earned at the proposed \$10.10 per hour minimum wage would be lower in 2016 compared to what it would be if the minimum wage were raised to that level in 2014.

Inflation would also affect the taxes and benefits that minimum wage workers could receive in 2016 compared with 2014. Federal income tax personal exemptions, standard deductions, tax brackets, and the EITC are adjusted for inflation each year, so that inflation does not increase tax burdens or reduce the purchasing power of the EITC. Additionally, SNAP income eligibility and benefit amounts also are adjusted each year for changes in the cost-of-living.

Projected Gross and Net Income in 2016 Under Current Law

Table 4 shows gross earnings and projected net income for a full-year, full-time minimum wage worker by family type, under the current law \$7.25 minimum wage in 2016. The table shows patterns very much like those shown in **Table 3** for 2014, though there are some subtle differences. The families would have the same nominal earnings and payroll tax liabilities, but would tend to benefit more from both the EITC and SNAP than they would in 2014. The single person with no children would fall just under the projected income cutoff for the EITC in 2016, and receive a very small EITC benefit. His or her SNAP benefit would also increase. The EITC benefits for families with children would also increase, as they are adjusted annually for inflation.

Table 4. Gross Earnings and Projected Net Income of a Full-Year, Full-Time Minimum Wage Worker at (\$7.25 per hour), by Family Type in 2016

Income Considering Earnings, Federal Taxes, and Supplemental Nutrition Assistance Program Benefits

	Single Person/No Children	Childless Couple	Single Mother/Two Children	Married Couple/One Child
Gross earnings	\$15,080	\$15,080	\$15,080	\$15,080
Payroll tax liability	-1,154	-1,154	-1,154	-1,154
Federal income tax liability (before credits)	-458	0	0	0
Net earnings (earnings minus federal tax liabilities)	13,468	13,926	13,926	13,926
EITC	1	431	5,652	3,420
Child credit	0	0	1,812	1,000
SNAP	192	1,245	3,102	3,102
Net income	13,662	15,603	24,492	21,448

Source: Congressional Research Service (CRS) calculations based on case simulation. Calculations of benefits use projected 2016 program rules consistent with the Congressional Budget Office's (CBO's) February 2014 economic forecast and federal budget baseline.

Notes: Federal income tax calculations assume the tax filer takes a standard deduction and personal exemptions; no other deductions were assumed. For SNAP, the household is assumed only to take the standard deduction and receive the earned income disregard. No other deductions allowed under SNAP law are assumed.

Though nominal gross earnings remain the same, and nominal net income even rises for these families between 2014 and 2016, inflation as forecasted by CBO would erode the purchasing power of both gross earnings and net income. **Table 5** illustrates gross earnings and net income at the current minimum wage relative to the federal poverty guidelines in both 2014 and 2016. The poverty guidelines measure a standard of living consistent over time, and are thus adjusted for inflation. The table shows that gross earnings decline relative to poverty between 2014 and 2016 (for example, by 0.051 percentage points for a single person with no child). For each family type,

net income also declines, though by less than gross earnings. Thus, even though the federal income tax system and SNAP benefits mitigate some of the loss in value of the minimum wage, all these workers would still see a loss in the purchasing power of their net incomes.

Table 5. Ratio of Projected Gross Earnings and Net Income to Poverty Level Income for a Full-Year, Full-Time Minimum Wage Worker at \$7.25 Per Hour, by Family Type, 2016

1.000 = Poverty-Level Income

	2014	2016	Percentage Point Difference
Gross earnings			
Single person/no children	1.292	1.241	-0.051
Childless couple	0.959	0.922	-0.036
Single mother/two children	0.762	0.734	-0.028
Married couple/one child	0.762	0.734	-0.028
Net income (considering earnings, federal taxes, and SNAP)			
Single person/no children	1.155	1.124	-0.031
Childless couple	0.979	0.954	-0.025
Single mother/two children	1.218	1.192	-0.026
Married couple/one child	1.068	1.044	-0.024

Source: Congressional Research Service (CRS) calculations. Calculations of benefits use projected 2016 program rules consistent with the Congressional Budget Office's (CBO's) February 2014 economic forecast and federal budget baseline. Poverty guidelines are adjusted using the CBO economic forecast.

Notes: Federal income tax calculations assume the tax filer takes a standard deduction and personal exemptions; no other deductions were assumed. For SNAP, the household is assumed only to take the standard deduction and receive the earned income disregard. No other deductions allowed under SNAP law are assumed.

Projected Gross Earnings and Net Income in 2016 Under a Minimum Wage of \$10.10 per Hour

A minimum wage of \$10.10 per hour would produce gross annual earnings of \$21,008 for a full-year, full-time worker. **Table 6** shows the gross earnings and net income for a full-year, full-time minimum wage worker by family type in 2016. At the higher level of gross earnings, eligibility for and benefit amounts from the federal tax system and SNAP would change.

Table 6. Gross Earnings and Projected Net Income of a Full-Time, Full-Year Minimum Wage Worker (\$10.10 Per Hour), by Family Type in 2016

Income Considering Earnings, Federal Taxes, and Supplemental Nutrition Assistance Program Benefits

	Single Person/No Children	Childless Couple	Single Mother/Two Children	Married Couple/One Child
Gross earnings	\$21,008	\$21,008	\$21,008	\$21,008
Payroll tax liability	-1,607	-1,607	-1,607	-1,607
Federal income tax liability (before credits)	-1,106	-1	0	0
Net earnings (earnings minus federal tax liabilities)	18,295	19,400	19,401	19,401
EITC	0	0	5,113	3,420
Child credit	0	0	2,000	1,000
SNAP	0	48	1,686	1,686
Net income	18,295	19,448	28,200	25,507

Source: Congressional Research Service (CRS) calculations based on case simulation. Calculations of benefits use projected 2016 program rules consistent with the Congressional Budget Office's (CBO's) February 2014 economic forecast and federal budget baseline.

Notes: Federal income tax calculations assume the tax filer takes a standard deduction and personal exemptions; no other deductions were assumed. For SNAP, the household is assumed only to take the standard deduction and receive the earned income disregard. No other deductions allowed under SNAP law are assumed.

Table 7 shows the increases in both gross earnings and net income from an increase in the minimum wage from \$7.25 per hour to \$10.10 per hour. On an annual basis, such an increase would boost gross earnings by \$5,928. Net income would also rise.

However, as shown in the table, net income increases by an amount less than gross earnings. Tax liabilities rise with incomes. Additionally, a rise in income either reduces SNAP benefits or can make a household ineligible for SNAP. In the table, negative numbers for tax liabilities represent an increase in tax payments. Negative numbers for EITC and SNAP benefits represent a reduction in benefits from the tax credit and the program.

The degree to which an increase in the minimum wage increases net incomes varies by family type. Specifically:

- Federal income tax liabilities rise for the hypothetical workers without children. Those with children would continue to be in families that owe no federal income taxes.
- The EITC is ended for the childless families, and reduced for the single mother with two children. The married couple with one child would remain eligible for the maximum EITC for 2016.
- The child credit is *increased* for the single mother with two children, as she can now claim the maximum child credit of \$2,000 (\$1,000 for each child).

Table 7. Changes in Gross Earnings and Net Incomes from an Increase in the Minimum Wage from \$7.25 to \$10.10 per Hour, 2016

Income Considering Earnings, Federal Taxes, and Supplemental Nutrition Assistance Program Benefits

	Single Person/No Children	Childless Couple	Single Mother/Two Children	Married Couple/One Child
Earnings	5,928	5,928	5,928	5,928
Payroll tax liability	-453	-453	-453	-453
Federal income tax liability (before credits)	-648	-1	0	0
Net earnings (earnings minus federal tax liabilities)	4,826	5,474	5,475	5,475
EITC	-1	-431	-539	0
Child credit	0	0	188	0
SNAP	-192	-1,197	-1,416	-1,416
Net income	4,633	3,846	3,708	4,059
Ratio: change in net income to gross earnings	0.78	0.65	0.63	0.68

Source: Congressional Research Service (CRS) calculations based on case simulation. Calculations of benefits use projected 2016 program rules consistent with the Congressional Budget Office's (CBO's) February 2014 economic forecast and federal budget baseline

Notes: Federal income tax calculations assume the tax filer takes a standard deduction and personal exemptions; no other deductions were assumed. For SNAP, the household is assumed only to take the standard deduction and receive the earned income disregard. No other deductions allowed under SNAP law are assumed.

As discussed, an increase in the minimum wage would increase the net incomes of all family types, but by less than the full dollar value of the increase in gross earnings. This is quantified in the table as the ratio of the increase in net income to gross earnings. For a rise in the minimum wage from \$7.25 per hour to \$10.10 per hour, this measure differs by family type. The ratio of the increase in net income to gross earnings for a single, childless person is 0.78; for a single mother with two children the ratio of the increase in net earnings is 0.63. The difference is attributable to the dollar value of benefits from the tax system and SNAP going to the different family types. The single person without a child receives the least in such benefits; thus there is less need-tested benefits to reduce when income increases for such a person. Thus, the single worker gets to keep a greater share of his or her earning increases than do workers in other family types.

On the other hand, the single mother with two children receives the most in benefits from the tax system and SNAP. There is more need-tested aid to reduce for her, and thus her net income increases by less than that of the single person without a child. However, she still would receive the most in government aid of the family types examined in the table. She would also still have the highest net income of all the family types examined in the table.

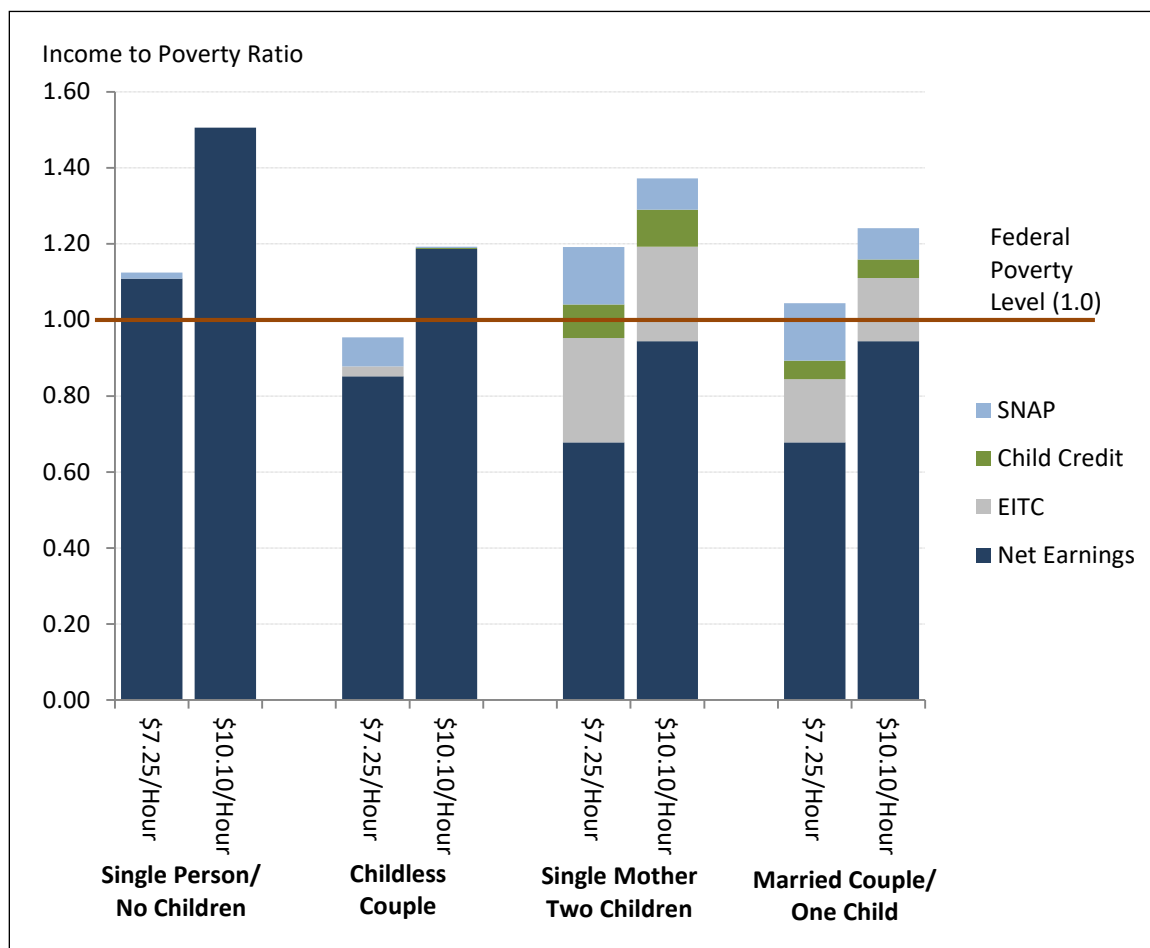
Another way to examine the relationship between increases in gross earnings and increases in net income is to examine the implicit "tax rate" on an earnings increase. The single mother with two children "keeps," in terms of net income, 63% of the earnings increase. She loses, or is implicitly "taxed" through increases in taxes and reductions in benefits, the remaining 37%. This is a higher "tax rate" than faced by many higher income families who receive no benefits. The implicit tax rates faced by lower-income workers are discussed in "Work Incentives and Disincentives" and the **Appendix**.

Increase in the Minimum Wage and Poverty

Figure 3 shows how an increase in the minimum wage from \$7.25 per hour to \$10.10 per hour would affect net incomes of full-year, full-time minimum wage workers relative to poverty-level income. This is projected for 2016. Under current policies, all workers except the one supporting a married couple with no children would have net incomes above the poverty threshold. The minimum wage increase to \$10.10 per hour would boost all family types shown on the figure to have incomes above the poverty level. It would also change the relationship of the different family types relative to the poverty line. Under the current federal minimum wage, the net income of the single mother working full-time, full-year at the minimum wage with two children was the greatest relative to poverty of all family types shown. Under the proposed \$10.10 minimum wage, the net income of the single worker with no children working full-time, full year at the minimum wage would be the greatest relative to poverty of the family types shown.

Figure 3. Projected Net Income of a Full-Year, Full-Time Minimum Wage Worker Relative to Poverty at \$7.25 per Hour and at \$10.10 per Hour, by Family Type in 2016

Income Considering Earnings, Federal Taxes, and Supplemental Nutrition Assistance Program Benefits



Source: Congressional Research Service (CRS) calculations based on case simulation. Calculations of benefits use projected 2016 program rules consistent with the Congressional Budget Office (CBO's) February 2014 economic forecast and federal budget baseline.

Notes: Net earnings equal gross earnings minus payroll taxes and any regular federal income tax liability (before credits). Federal income tax calculations assume the tax filer takes a standard deduction and personal exemptions; no other deductions were assumed. For SNAP, the household is assumed only to take the standard deduction and receive the earned income disregard. No other deductions allowed under SNAP law are assumed. These figures assume a cost-of-living adjustment for SNAP on October 1, 2014 consistent with the Congressional Budget Office's (CBO's) February 2014 economic forecast and federal budget baseline.

Table 8 provides a comparison of net income relative to poverty in 2014 at the current minimum wage and in 2016 at both the current minimum wage and a \$10.10 per hour minimum wage. It shows that the proposed minimum wage hike would boost income-to-poverty ratios both relative to what they would be under current law in 2016, and also what they would be for such a worker in 2014. That is, the increase in the minimum wage would raise real incomes in 2016 compared with what they are in 2014 for full-year, full-time minimum wage workers.

Table 8. Ratio of Net Income Relative to Poverty-Level Income for Full-Year, Full-Time Minimum Wage Workers: 2014 at Current Minimum Wage and 2016 Under Current Law Minimum Wage (\$7.25 per Hour) or a \$10.10 per Hour Minimum Wage

Income Considering Earnings, Federal Taxes, and Supplemental Nutrition Assistance Program Benefits,
1.000 = Poverty-Level Income

	2014 at the Current Minimum Wage	Projected 2016 at:	
		Current Law (\$7.25 per Hour) Minimum Wage	Minimum Wage Raised to \$10.10 per Hour
Single person/no children	1.155	1.124	1.506
Childless couple	0.979	0.954	1.189
Single mother/two children	1.218	1.192	1.372
Married couple/one child	1.068	1.044	1.241

Source: Congressional Research Service (CRS) calculations based on case simulation. Calculations of benefits use projected 2016 program rules consistent with the Congressional Budget Office's (CBO's) February 2014 economic forecast and federal budget baseline.

Notes: Federal income tax calculations assume the tax filer takes a standard deduction and personal exemptions; no other deductions were assumed. For SNAP, the household is assumed only to take the standard deduction and receive the earned income disregard. No other deductions allowed under SNAP law are assumed.

Considerations Related to Raising the Minimum Wage

Minimum wage and federal tax-transfer policies affect different family types in different ways. Under current law, a single person without a child who earns the minimum wage and works full-time all year, has both gross earnings and net (after-tax) income above the poverty line in 2014. For families with children, the earnings of one worker at the minimum wage working full-time, year round is insufficient to lift his or her family above poverty. However, the federal tax system and the SNAP program supplement earnings for these family types, raising net income above

poverty. Of the family types illustrated in this report, only the minimum wage worker supporting a spouse and no children has net income below poverty if working full-year, full-time under current law in 2014.

However, over time, the purchasing power of a set minimum wage (currently \$7.25 per hour) declines. With that decline in value, the net income of families earning the minimum wage also declines, even considering government benefits that partially offset the loss in purchasing power of minimum wage earnings.

An increase in the federal minimum wage is one option if Congress wishes to attempt to increase the incomes of these workers. It is also an option that might reduce reliance on federal taxes and benefit programs. The above illustrations show that a rise in the minimum wage from current law to \$10.10 per hour would boost the incomes of those working full-time, year round at the minimum wage, even after considering increased tax liabilities and reduced refundable tax credits and SNAP benefits. The reduced refundable tax credits and SNAP benefits also mean that an increase in the minimum wage could reduce government support to these families—meaning that these families would have higher incomes, at lower government cost.

Congress faces certain considerations in the debate over raising the minimum wage. In particular are concerns about the effect of raising the minimum wage on employment, and whether a minimum wage policy would be targeted to those most in need.

Employment Effects

A minimum wage increase would improve the well-being of workers—regardless of their family type—only if they remain employed. Implicit in the discussion of the effects of minimum wage increases on earnings is that any potential disemployment effects will not erode the earnings increases. That is, if increases in the minimum wage lead to lower levels of employment, through job loss or reduced work hours, then the benefits of an increase would not be realized.¹⁴

In the broad range of economic literature on the effects of the minimum wage, there is vigorous debate among economists about the effects of the minimum wage. Rigorous and valid literature exists to support conflicting views on the impact of the minimum wage.

The divergent findings of the minimum wage literature may be organized by categorizing the labor market models underpinning the various studies.

- In broad terms, **the competitive model** of the labor market suggests that minimum wage increases will lead to reduced employment. Firms in a competitive market determine the number of people they employ based on wage rates, and the prices their products command. These firms cannot set the prices for their products and earn profits needed just to stay economically competitive. Under this model, the only avenue these firms have to respond to a change in the wage rate from an increase in the minimum wage is to change (reduce) the level of employment.
- On the other hand, if some of the assumptions of the competitive model are relaxed, or the labor market is analyzed using **non-competitive models**, theory

¹⁴ This section briefly addresses the literature on the economic impacts of minimum wages. It is well beyond the scope of this report to provide a formal meta-analysis of the existing literature, which includes multiple studies over many years, or to offer a complete description of the many variations in approaches to estimating the economic impacts of minimum wages. Rather, this section attempts to explain some of the issues in estimating the effects of changes in the minimum wage.

might predict negligible or positive employment effects. These models are premised on the notion that one or more of the conditions of the strict competitive model, described above, do not hold for firms. These firms might be able to charge a higher price for their products, or otherwise offset increases in wage rates through channels of adjustment other than employment (e.g., profit, operational efficiencies).

In the late 1970s, Congress created the Minimum Wage Study Commission (MWSC) to review the literature and assist Congress in understanding the costs and benefits of the federal minimum wage. The research up until the time of this review typically consisted of time-series analysis on national level data. The MWSC released its review findings in 1981 and a widely reported finding was that a 10% increase in the minimum wage was typically associated with a 1% to 3% reduction in teenage employment. There was not a similar consensus on the effects of minimum wage increases on adult employment. These conclusions were typically considered the “consensus” view of the effects of the minimum wage on employment: small employment effects for teenage workers and an indeterminate effect on adult employment.

By the early 1990s, with the implementation of some state level minimum wage rates above the federal rate, researchers turned to “natural experiments” and case studies to test the effects of minimum wage increases. Perhaps best known in this area is work by economists David Card and Alan Krueger, who, taking advantage of a minimum wage increase in New Jersey in the early 1990s, compared the employment effects in the fast-food industry in that state and in neighboring Pennsylvania. The findings from the Pennsylvania-New Jersey case study, as well as from analyses using controls for regional variation in wage costs, suggested little or no employment effects of minimum wage increases. In their earlier review of the minimum wage literature, Card and Krueger noted “a new body of evidence showing that recent minimum wage increases have not had the negative employment effects predicted by the textbook [competitive] model.”¹⁵

Following the research in the 1990s and early 2000s, a few reviews and “meta studies” came out in the 2000s that attempted to examine the voluminous research on the minimum wage:¹⁶

- In an extensive review of minimum wage studies, economists David Neumark and William Wascher in 2007 noted that there is a “lack of consensus about the overall effects on low-wage employment of an increase in the minimum wage” but “a sizable majority of the studies surveyed ... give a relatively consistent (although not always statistically significant) indication of negative employment effects of minimum wages.”¹⁷ Neumark and Wascher’s own work on the minimum wage consistently supports the negative and statistically significant employment effects of minimum wage increases. The empirical findings of Neumark and Wascher, and the other studies that find negative effects of the minimum wage, tend to support the standard competitive model of the labor

¹⁵ David Card and Alan B. Krueger, *Myth and Measurement: The New Economics of the Minimum Wage* (Princeton, NJ: Princeton University Press, 1995), p. 1. The publication of Card and Krueger’s work generated considerable response, in particular from economists David Neumark and William Wascher. See David Neumark and William Wascher, *Minimum Wages and Employment*, IZA, Discussion Paper 2570, January 2007.

¹⁶ A “meta study” is study of studies that typically uses statistical techniques to pool the results of numerous individual studies, thus increasing the amount of data that may be analyzed.

¹⁷ Neumark and Wascher (2007), Abstract.

market, which suggests that increases in the minimum wage will have negative measurable employment effects.¹⁸

- In a meta-study of studies published between 1972 and 2007, Doucouliagos and Stanley reviewed 1,474 empirical estimates of the minimum-wage elasticity of employment contained in 64 studies and find that the evidence corroborates the Card-Krueger “overall finding of an insignificant employment effect (both practically and statistically) from minimum-wage raises.”¹⁹ The empirical findings of Card and Krueger, and the other studies that find negligible or positive employment effects of the minimum wage, tend to support alternative models of the labor market. For example, in reviewing these studies, Flinn concluded that, “these recent studies have been particularly useful in indicating that the ‘textbook’ competitive model of the labor market, which has been used as an interpretive framework for the bulk of empirical work ... may have serious deficiencies in accounting for minimum wage effects on labor market outcomes.”²⁰

Finally, at least two recent studies have attempted to further refine the methodological approaches to estimate the effects of minimum wage increases by exploiting the growing number of divergent state minimum wage rates.²¹ Taken together, this line of research suggests that once heterogeneity in employment growth (i.e., different employment performance across states and over time) is considered, any negative effects of minimum wage laws become insignificant. That is, according to these recent studies, disemployment effects often attributed to changes in minimum wage rates disappear once the estimation models account for regional and local differences in employment trends. Overall, the authors conclude that the estimates “suggest no detectable employment losses from the kind of minimum wage increases we have seen in the United States.”²²

In a February 2014 report, the Congressional Budget Office (CBO) assessed a \$10.10 per hour increase in the minimum wage. It estimated that, once fully implemented in the second half of 2016, the proposed increase in the minimum wage would reduce employment by 500,000 workers, or 0.3%. CBO also noted there was “considerable uncertainty” around this estimate, and the employment impact could range from very slight reductions to 1.0 million workers.²³ They also assessed an increase in the minimum wage to \$9.00 per hour. CBO estimated that an increase to \$9.00 per hour would have smaller effects (reduced employment by an estimated 100,000 workers). CBO, in its report, noted that the proposed increase in the minimum wage from \$7.25 per hour to \$10.10 per hour is larger than most increases studied in the research, and CBO assumed that the responses by employers would be greater the larger the increase in the minimum wage.

¹⁸ See Table 5.2 in Neumark and Wascher (2007) for a full list of the studies that support negative impacts of minimum wage increases.

¹⁹ Hristos Doucouliagos and T.D. Stanley, “Publication Selection Bias in Minimum-Wage Research? A Meta-Regression Analysis,” *British Journal of Industrial Relations*, vol. 47, no. 2 (June 2009), p. 422.

²⁰ See Christopher J. Flinn, “Minimum Wage Effects on Labor Market Outcomes Under Search, Matching, and Endogenous Contact Rates,” *Econometrica*, vol. 74, no. 4 (2006), p. 1014.

²¹ Arindrajit Dube, T. William Lester, and Michael Reich, “Minimum Wage Effects Across State Borders: Estimates Using Contiguous Counties,” *The Review of Economics and Statistics*, vol. 92, no. 4 (November 2010) and Sylvia A. Allegretto, Arindrajit Dube, and Michael Reich, “Do Minimum Wages Really Reduce Teen Employment? Accounting for Heterogeneity and Selectivity in State Panel Data,” *Industrial Relations*, vol. 50, no. 2 (April 2011).

²² Dube et. al. p. 962.

²³ CBO said this range represented a two-thirds chance. See U.S. Congressional Budget Office, *The Effects of a Minimum Wage Increase on Employment and Family Income*, February 2014.

In sum, as this brief review suggested, the literature on the effects of the minimum wage is voluminous and the findings are often contradictory. As this body of research has developed over time and as additional data and estimation techniques have become available, it is reasonably clear that the previous consensus finding of negative employment effects of minimum wage increases (particularly for teenagers) no longer holds for minimum wage increases of the size that had been typically considered in the United States. In recent years, there have been numerous studies suggesting little or no disemployment effects of minimum wage increases. Given the contradictory findings of the research, the debate over the effects of proposed minimum wage increases is likely to continue.

Targeting Those Most In-Need

The minimum wage has been called a “blunt instrument” for reducing poverty. A minimum wage increase would raise the earnings of those who support families and have greater need, as well as those who do not. The illustrations in this report tend to support that argument. The greatest impact relative to poverty of a minimum wage increase to \$10.10 per hour would be for the single person without a child, the type of worker whose earnings already exceed the federal poverty guidelines. The illustrations in this report also show how federal tax and benefit policies—designed to reflect family circumstances and hence “need”—supplement incomes to “even out” the relationship between net incomes and poverty among different family types. Thus, federal tax and transfer policies can be designed to target need, while minimum wage policies do not.

In its February 2014 report, CBO said an increase in the minimum wage to \$10.10 per hour would increase the earnings of 16.5 million low-wage workers in 2016, resulting in an aggregate increase in earnings of \$31 billion. However, CBO also estimated that of the \$31 billion in increased earnings, 19% of the increase would go to families with incomes below the poverty level. CBO also estimated that the increase in the minimum wage would reduce the number of people in poverty in 2016 by 900,000, reducing by 2% the number of people who would be in poverty under current law in 2016.

Other Impacts

An increase in the minimum wage might have effects on the economy in addition to any impacts on employment. Depending on conditions in its labor and product markets, a business might react to an increase in the minimum wage in a number of alternative ways. For example, to the degree businesses can pass along the increased cost of the minimum wage to consumers, a minimum wage increase can increase prices. It could also reduce profits. Businesses might cut back on labor costs other than those mandated by the minimum wage (e.g., training costs).

Under the proposals to raise the minimum wage to \$10.10 per hour, many of these other impacts would not affect most minimum wage workers or poverty. For example, the proposal would shield minimum wage workers from price hikes through annual adjustment of the minimum wage for inflation.

Considerations Related to Alternatives to Raising the Minimum Wage

A common alternative to raising the minimum wage to address poverty among the working poor is to increase earnings supplements, most commonly through the tax code with the EITC, but also through transfer programs such as SNAP. Federal policy has increasingly relied on increases in

refundable tax credits and SNAP to assist the working poor, particularly those in families with children.

Expansions of the earned income tax credit and reducing the income tax burden have garnered bipartisan support during the period since the 1980s. President Reagan, upon signing the 1986 Tax Reform Act, said the following:

Millions of the working poor will be dropped from the tax rolls altogether, and families will get a long-overdue break with lower rates and almost doubled personal exemption. We're going to make it economical to raise children again.²⁴

President Clinton made the following remarks as the 1993 tax bill, with its further expansion of the EITC, was being considered in Congress:

But the most important thing of all to reward work is that this will be the first time in the history of our country when we'll be able to say that if you work 40 hours a week and you have children in your home, you will be lifted out of poverty. It is an elemental, powerful, and profound principle. It is not liberal or conservative. It should belong to no party. It ought to become part of the American creed.²⁵

Expansions of the EITC have been seen as both substitutes for raising the minimum wage, as well as a means to reduce welfare dependency by making work pay.

The increase in income from the EITC—and the addition of the refundable portion of the child tax credit—significantly reduces poverty among children and their families. This is shown not only in the illustrations of this report, but also based on a Congressional Research Service (CRS) analysis of household and family income data. In 2010, three tax credits—the EITC, the child credit, and a temporary “make work pay” tax credit in effect in that year—reduced the child poverty rate by about 30%.²⁶

However, there are a number of considerations that could be raised: (1) the federal budget cost of earnings supplements, and their potential increases; (2) potential work incentives and disincentives; (3) the annual nature of EITC benefits compared to ongoing income support through wages; and (4) potential effects on the wages and returns to work for those who do not receive earnings supplements.

The Budget Costs of Earnings Supplements

Recently, there has been increased attention to the federal budget costs of low-income aid. The Heritage Foundation has highlighted the increased costs of “welfare.”²⁷ (It uses an expansive definition of “welfare” to cover all need-tested benefit programs, including SNAP.) New rules adopted by the House of Representatives in January 2013 required the Congressional budget resolutions considered in the House to include information on spending for “direct means-tested programs.”

²⁴ U.S. President (Reagan), “Remarks on Signing the Tax Reform Act of 1986,” *Public Papers of the Presidents of the United States: Ronald Reagan, 1986* (Washington: GPO, 1989), p. 1415.

²⁵ U.S. President (Clinton), “Remarks on the Earned-Income Tax Credit and an Exchange with Reporters,” *Public Papers of the Presidents of the United States: William J. Clinton, 1993* (Washington: GPO, 1994), p. 1225.

²⁶ CRS Report R41999, *The Impact of Refundable Tax Credits on Poverty Rates*, by Margot L. Crandall-Hollick.

²⁷ For example, see Robert Rector, “Examining the Means-Tested Welfare State: 79 Programs and \$927 Billion in Annual Spending,” Testimony before the Committee on the Budget, United States House of Representatives. May 3, 2012.

For families receiving assistance apart from the aged or disabled, a large share of federal and state spending is for families with earnings. **Table 9** shows program spending for selected low-income cash and food assistance programs for the nonelderly and nondisabled in FY2011. Overall, \$103 billion of the \$142 billion in assistance provided by these selected programs went to families with earnings. The two refundable tax credits are conditioned on earnings, so 100% of their benefits went to families with earnings. SNAP and TANF pay benefits to families with and without earnings. For SNAP, 43.5% of all benefit payments to households without an elderly or disabled member went to households with earnings. Even with TANF—the program most associated with the term “welfare”—16.3% of benefits went to families with earnings.

Table 9. Selected Benefits to Low-Income Families Not Based on Being Aged or Disabled, For Families with Earnings and Those without Earnings: FY2011

Dollars in Billions

	Families with No Earners	Families with Earners	Totals	Percent of Totals for Families with Earners
TANF	\$8.9	\$1.7	\$10.6	16.3%
SNAP (households without an elderly or disabled member)	30.2	23.2	53.4	43.5
EITC	—	55.6	55.6	100.0
Child credit	—	22.7	22.7	100.0
Totals	39.1	103.2	142.3	72.5

Source: EITC and Child Tax Credit numbers represent outlays and are from the *Budget of the United States Government, Fiscal Year 2013*. TANF benefits are from Congressional Research Service (CRS) tabulations of the FY2011 TANF National Data Files. SNAP benefits are from CRS tabulations of the FY2011 SNAP Quality Control Data File

Notes: Detail may not add to totals because of rounding.

As shown in this report, an increase in the minimum wage would reduce the benefits paid to certain low-income households. However, the potential cost savings of these reduced benefits would be offset if the wage hike resulted in job loss and associated new spending on benefits. The CBO in its February 2014 report analyzing an increase in the federal minimum wage to \$10.10 per hour said that budget deficits would likely be lower in the first decade after the increase in the minimum wage, with slightly higher budget deficits in the decades thereafter.

Work Incentives and Disincentives

Need-tested benefits tend to be reduced as a family’s other income increases. Families also pay payroll and (at some level of income), income taxes. Thus, a family’s total income does not rise by \$1 for each \$1 in increased earnings.

The EITC and the child credit are different from other forms of need-tested benefits, in that at lower levels of earnings, the amounts of these credits increase. That is, they provide an “earnings bonus” or earnings supplement. For those out of the labor market who could benefit from this credit (mostly families with children) as well as very low earners, the EITC and the child credit act as work incentives. It is only at higher levels of earnings that the EITC is phased out, and at even higher earnings that the child credit is phased out.

However, the fact that these benefits phase out creates concern about work disincentives. Families that receive benefits from multiple programs, such as the EITC and SNAP, can sometimes have benefits from more than one program being reduced at the same time. This leads to concern that some families face high implicit marginal tax rates that produce disincentives to increasing hours of work or seeking higher paying jobs. Moreover, the EITC and SNAP paid to those already working might also have an “income effect,” providing an incentive for workers in benefitting households to reduce their hours.

Recent research on the economic effects of earnings supplements divides a potential worker’s decision into two parts: (1) whether or not to participate in the labor force; and (2) once in the labor force, how many hours to work. The research generally finds that earnings supplements increase participation in the labor force. This was found in a series of welfare reform experiments in the 1990s, as well as research on the economic effects of the EITC.²⁸

Less attention has focused on potential disincentives of earnings supplements to either increasing hours of work or reducing hours for those already working. Studies that examine whether the EITC reduces hours of those working found little or no effect. However, there is some evidence from the welfare reform experiments in the early 1990s that earnings supplements can reduce hours of those who were already working. For more information on implicit marginal tax rates, see the **Appendix**.

Ongoing Income Support Versus Tax Refunds

Wages provide income on an ongoing basis: weekly, bi-weekly, or monthly depending on how frequently a minimum wage worker is paid. On the other hand, earnings supplements through the tax code—such as the EITC and child credit—boost income only once a year, when the tax refund check is sent to the worker. The large share of net income for families with children comprised by the annual EITC and child credit refunds likely has consequences for a family’s well-being. Research has found that income from the EITC is spent somewhat differently than is income received on a more regular basis. Surveys find that the recipients of the EITC say they will use it to pay bills and reduce debt. Research has also found that the EITC is more likely to result in spending on large items: durable goods and vehicles.²⁹

Potential Impact on Wages and Income

One of the oft-cited advantages of EITC expansions compared with increases in the minimum wage is that EITC expansions have not been found to reduce employment. On the contrary, EITC expansions have been found to increase the work effort of those who benefit from them, particularly single mothers. That is, the EITC has been found to induce more people into the labor force (as noted in the discussion on “Work Incentives and Disincentives”).

However, if EITC increases the number of people in the labor force, it could also affect wage rates through the operation of supply and demand. By increasing the number of people available

²⁸ For estimates on the impact of the EITC on labor supply see, for example: Nada Eissa and Hilary W. Hoynes, “Behavioral Responses to Taxes: The EITC and Labor Supply,” in *Tax Policy and the Economy* (Chicago: University of Chicago Press, 2006), pp. 73-110. For a discussion of the welfare reform experiments, see Karin Martinson and Gayle Hamilton, *Providing Earnings Supplements to Encourage and Sustain Employment*, U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research and Evaluation, Practitioner Brief, May 2011.

²⁹ For a discussion, see Andrew Goodman-Bacon and Leslie McGranahan, *Federal Reserve Bank of Chicago Economic Perspectives*, vol. 32, no. 2 (2nd Quarter 2008), pp. 17-32.

to work, employers might be able to lower the wages they offer their employees. This would reduce their labor costs. Thus, workers and firms share the benefits of the earnings supplement, rather than all the benefit accruing to the worker.³⁰

A further potential consequence of the impact of earnings supplements on wage rates is that they can operate to actually reduce net incomes of some workers, albeit not those at the minimum wage. As the illustrations in this report show, not all workers benefit from the EITC. Childless workers are eligible for only a small earned income tax credit (7.65% to a maximum credit of \$496 per year); the single, full-year full-time minimum wage earner illustrated in this report would receive no benefit from the EITC in 2014. Thus, if the EITC reduces wages, workers who receive no or only small earnings supplements from the EITC could be made worse off by an expansion of the EITC.³¹ President Obama's FY2015 budget proposes to increase the EITC for childless workers. Senator Murray has also introduced legislation (S. 2162) that would, among other things, expand the EITC for childless workers.

Concluding Thoughts

Since 1981, the minimum wage has been raised through legislation enacted in 1990, 1996, and 2007. These increases have been insufficient to compensate for price increases, with the real value of the minimum wage declining over that period. However, government earnings subsidies, particularly credits through the tax code that benefit mostly families with children, have been expanded over this period. The expansion of earnings subsidies was an important component of the "welfare reforms" of the 1990s and is credited with part of the increase in single mothers' work that was a goal of those reforms. However, this has come at a budget cost, and has not benefitted all groups, particularly those without children.

The pending minimum wage legislation raises issues of whether government should intervene to address poverty among low wage workers, and if so, the best means to address it. In the past, minimum wages and earnings supplements have been viewed as alternative policies to address these issues. Both types of policies would raise incomes, but both types of policies also have potential drawbacks. Both types of policies also affect workers in different types of families differently. The recent literature not only discusses a weighing of the pros- and cons- of each approach, but suggest that policymakers consider how minimum wage and earnings-supplement policies interact with one another. This could also lead to a consideration of whether minimum wage and earnings supplements are alternative policies, or can be crafted as complementary policies, to address poverty.

³⁰ See, for example, Jesse Rothstein, "Is the EITC as Good as an NIT? Conditional Cash Transfers and Tax Incidence," *American Economic Journal: Economic Policy*, vol. 2, no. 1 (February 2010), pp. 177-208. See also Andrew Leigh, *Who Benefits from the Earned Income Tax Credit? Incidence among Recipients, Coworkers and Firms*, Institute for the Study of Labor, IZA Discussion Paper No. 4960, Bonn, Germany, May 2010, <http://ftp.iza.org/dp4960.pdf>.

³¹ Economists Neumark and Wascher, in a 2011 study, noted that a higher minimum wage might enhance the effectiveness of the EITC in drawing single mothers into the workforce. However, other groups in the labor force—such as teenagers and other low-skilled adults—had adverse labor market effects (lower earnings). See David Neumark and William Wascher, "Does a Higher Minimum Wage Enhance the Effectiveness of the Earned Income Tax Credit," *Industrial and Labor Relations Review*, vol. 64, no. 4 (July 2011), pp. 712-746.

Appendix. Implicit Marginal Tax Rates

Lower-income workers may not only face explicit taxes, such as FICA payroll taxes, but implicit taxes as well, if they are receiving need-tested assistance. Cumulative explicit and implicit taxes associated with work are commonly seen as potentially creating work disincentives. Moreover, receipt of assistance from multiple need-tested programs may exacerbate potential work disincentives, as a result of program interactions.

Implicit Marginal and Average Tax Rates

Workers incur payroll taxes beginning with the first dollar earned. The Federal Insurance Contribution Act (FICA) imposes a mandatory contribution of 6.2% of earnings towards Social Security Old Age Survivor and Disability Insurance (OASDI) trust fund, and an additional 1.45% Health Insurance (HI) contribution towards Medicare trust fund. Together, these taxes amount to a 7.65% explicit tax on earnings.

In addition to explicit taxes, need-tested assistance programs may effectively impose an implicit tax on working individuals. The structure of traditional need-tested assistance reflects a varying balance between social provision of a minimum level of income adequacy and reinforcing personal responsibility among society's members. Need-tested programs provide conditional assistance to households, families, and individuals, based on need and circumstance. Under traditionally structured need-tested assistance, households, families, or individuals with minimal income and resources may qualify for a maximum benefit, which in turn is reduced as earnings or other "countable income" increases. The reduction of benefits associated with increased earnings or other "countable income," often referred to as the benefit reduction rate (BRR), is commonly seen as an "implicit" tax, as earnings (or other countable income) increases. As such, a family's total income does not rise by \$1 for each \$1 in increased earnings, as a portion of other assistance they might have received is reduced at the program's BRR. For example, after income and certain expense disregards, SNAP benefits are reduced by 24 cents on every dollar earned, which can be viewed as an implicit 24% tax on earned income. Combined with FICA payroll taxes, an individual worker receiving SNAP might face a combined 31.65% marginal tax on earnings.

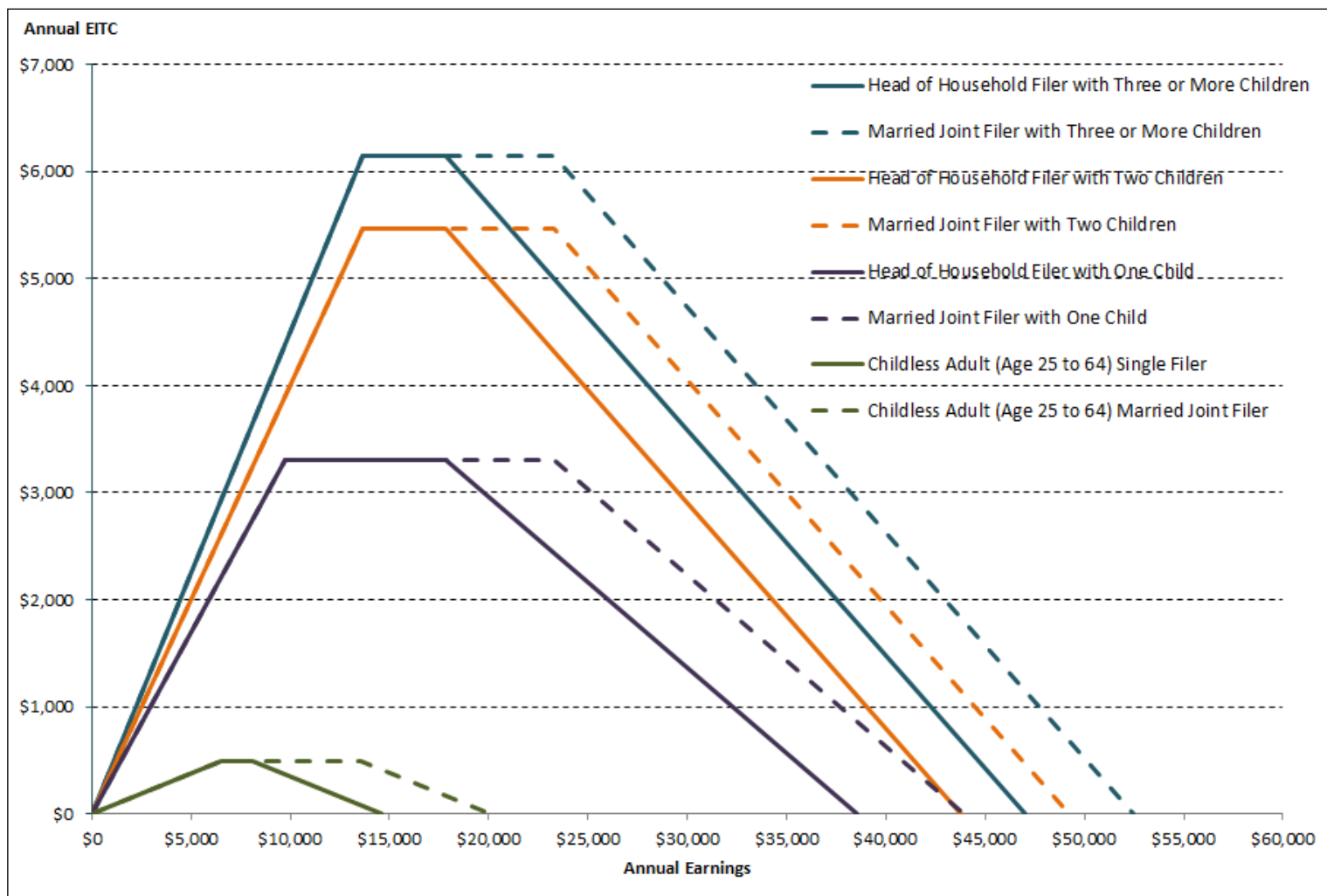
The EITC is structured differently than traditional need-tested assistance, in that it provides an "earnings bonus" to specified workers over lower-earnings ranges, up to a specified earnings level and maximum credit amount, before it begins to phase-out at higher earnings levels. (See **Figure A-1**.³²) Over the lowest earnings ranges, in which the EITC is phasing in, it provides an earnings subsidy, amounting from 7.65% for certain adult childless workers, to 34% for families

³² SNAP benefits are reduced as income increases at rate of 30% of countable income, after taking into account a standard deduction, and any applicable expense deductions for child care or excess shelter-expenses. The program disregards 20% of earnings from countable income. As a result, benefits are reduced by 24 cents for every dollar earned beyond the standard deduction, and any applicable expense deductions. That is, the SNAP BRR on earnings above deductions is: $(\text{Earnings} - (\text{Earnings} \times 0.20) \times 0.30) = (\text{Earnings} \times 0.30 - (\text{Earnings} \times 0.06)) = \text{Earnings} \times 0.24$.

In 2014, the EITC begins to phase-out at varying earnings levels, depending on tax filing status and number of qualifying children. For adult childless workers, age 25 to 64, the EITC *begins* to phase-out at an earnings level of \$8,110 for single filers, and \$13,540 for married-joint filers, and completely phases out at \$14,540, and \$20,020, respectively. For childless workers, the reduction in the EITC over the credit's phase-out range amounts to an implicit 7.65% tax rate (i.e., the credit is reduced by \$7.65 for every \$100.00 in earnings above the credit's phase-out income level). For tax filers with one qualifying child, the credit phases out over an earnings range from \$17,830 to \$38,511 for single head of household filers, and from \$23,260 to \$43,941 for married joint filers, effectively amounting to a 15.95% implicit tax rate on earnings over the phase-out range for each. For tax filers with two or more qualifying children, the EITC begins to phase out at the same earnings level as for single and married-joint tax filers with one child (\$17,830 and \$23,260, respectively), with the credit phasing out at a 21.06% rate.

with one child, 40% for families with two children, and 45.0% for families with three or more children, until reaching a maximum credit amount (*"EITC Plateau"*). Over the credit's phase-in range, the credit represents what some refer to as a *"negative income tax,"* in the sense that those eligible for the credit receive money back from the government, either as a refund in excess of any regular federal income tax liability, or as a reduction in federal income taxes that would otherwise be owed.

Figure A-1. Earned Income Tax Credit (EITC) Schedule, by Filing Status and Number of Children: 2014



Source: Figure prepared by the Congressional Research Service.

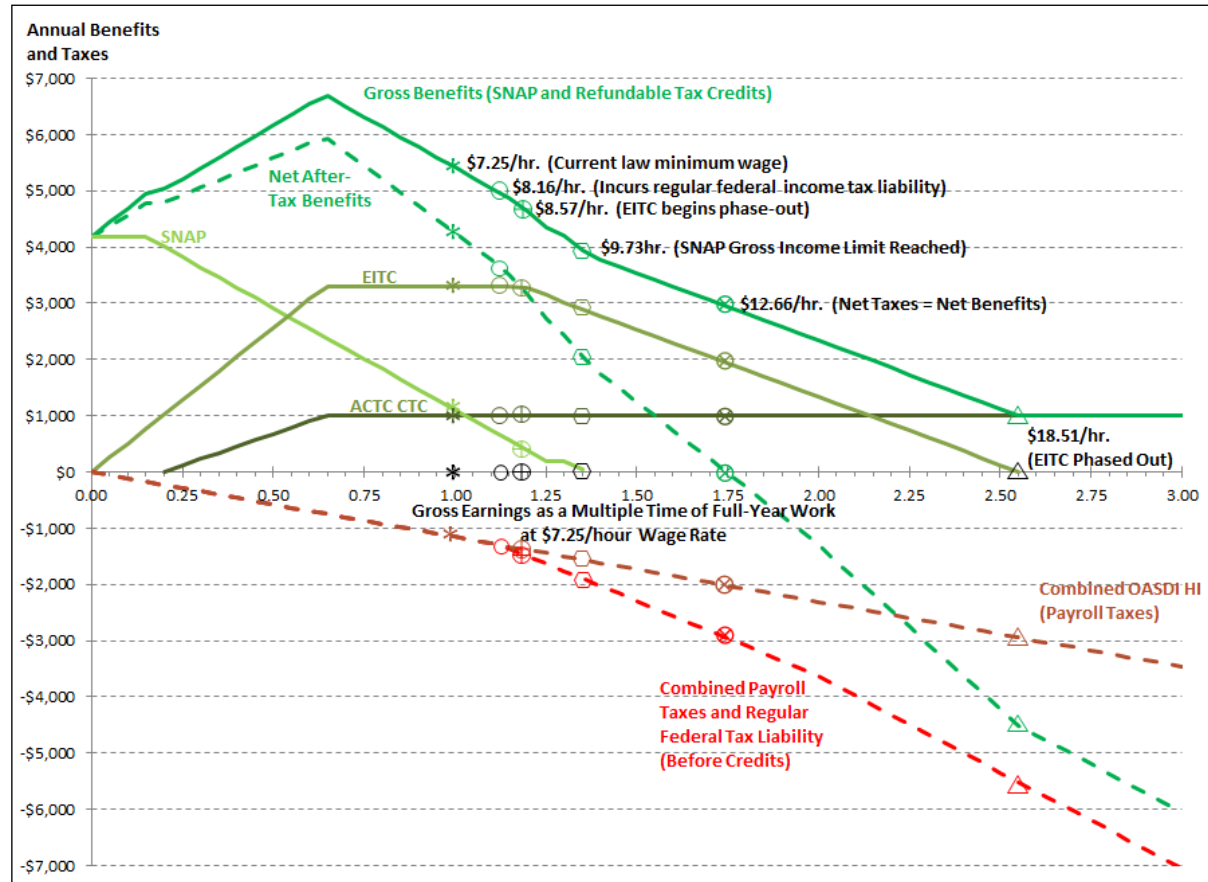
Figure A-2 shows the structure of benefits, tax credits, and explicit taxes relative to earnings. Earnings are expressed in terms of multiples of full-time full-year work at the current \$7.25 minimum wage, and range up to three-times (3.00 times) that level (the equivalent of \$21.75 per hour). The benefits shown include SNAP, and two refundable tax credits—the EITC and Additional Child Tax Credit (ACTC).³³ The ACTC is the refundable portion of the portion of Child Tax Credit (CTC), which is also shown in the figure. Explicit taxes include FICA payroll taxes, and any regular federal tax liability the depicted family might incur (before credits). Several reference points along the horizontal (hourly earnings equivalent) axis are highlighted, with corresponding vertical markers on each income source/definition:

- full-time full-year work at the current federal minimum wage (\$7.25/hour), shown at 1.00;
- full-time full-year work at \$8.16 per hour (about 1.13 times the current federal minimum wage), which marks the point at which the depicted worker would begin to incur a regular federal income tax liability (before credits);
- full-time full-year work at \$8.57 per hour (about 1.18 times the current federal minimum wage), which marks the point at which the depicted worker would begin to incur his or her EITC begin to phase-out;
- full-time full-year work at \$8.37 per hour (about 1.29 times the current federal minimum wage), which marks the point at which the depicted worker would lose food assistance under SNAP, due his or her gross earnings reaching the program’s gross income limit, set at 130% of the Federal Poverty Level;
- full-time full-year work at \$12.66 per hour (about 1.75 times the current federal minimum wage), which marks the point at which the depicted worker would begin to incur a positive net tax liability (i.e., combined FICA taxes and regular federal tax liability begin to exceed combined EITC and CTC benefits); and
- full-time full-year work at \$18.51 per hour (about 2.55 times the current federal minimum wage), which marks the point at which the depicted worker would no longer be eligible for the EITC.

³³ In 2014, a family with a qualifying child would begin to be eligible for the refundable ACTC at an annual earnings level exceeding \$3,000 (the credit’s refundability threshold), at which point the refundable credit amounts to 15% of earnings in excess of the refundability threshold, up to a maximum of \$1,000 per child. The depicted family with one qualifying child would be eligible for the maximum \$1,000 credit of \$9,667 (about two-thirds of the current full-time full-year minimum-wage earnings level) and above. For further discussion, see CRS Report R41873, *The Child Tax Credit: Current Law and Legislative History*, by Margot L. Crandall-Hollick.

Figure A-2. Selected Annual Benefits and Taxes by Gross Earnings Level, Single Parent with One Child, 2014

Gross Earnings as a Multiple of Full-Time, Full-Year Earnings at the Current Federal Minimum Wage (\$7.25 per hour)



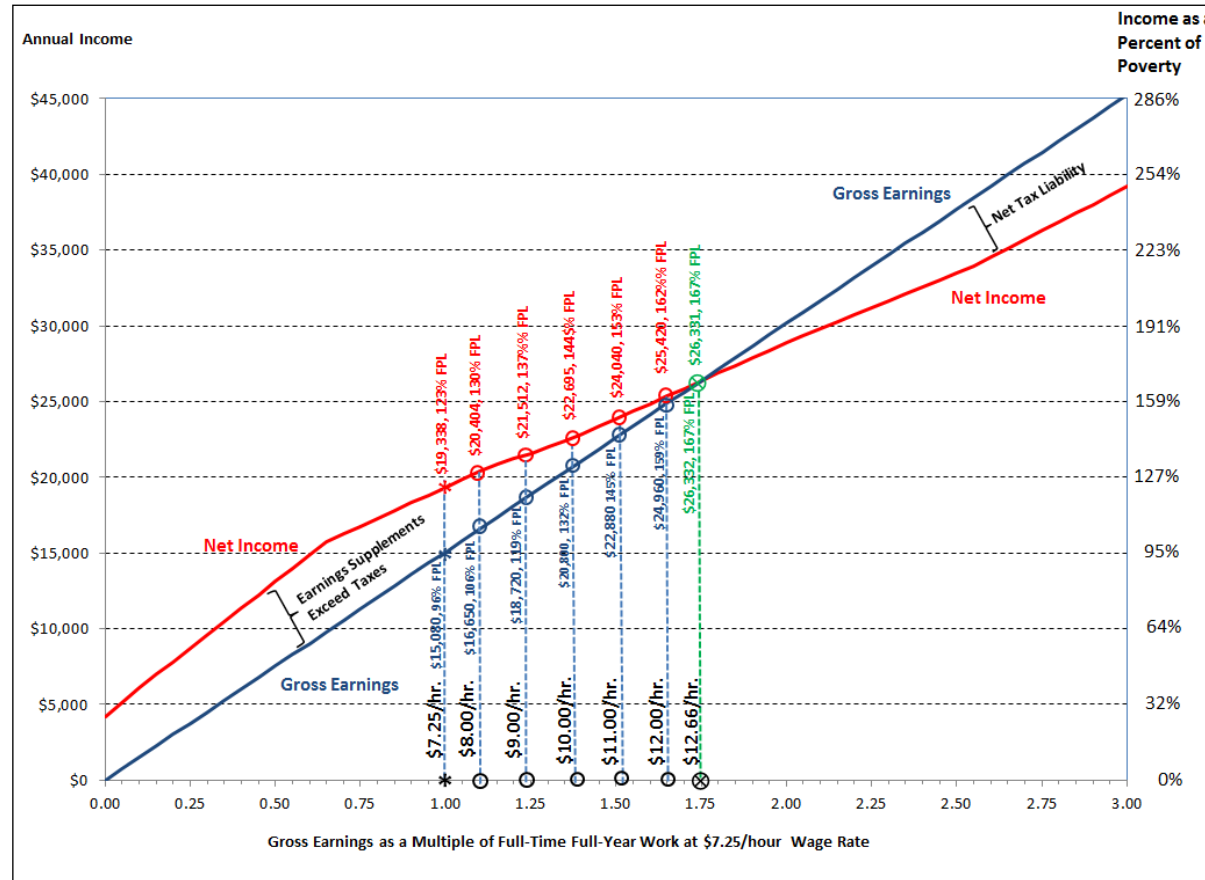
Source: Figure based on Congressional Research Service (CRS) calculations.

Notes: Gross earnings are based on 2,080 hours of work during the year. Net income includes gross earnings, less FICA taxes and regular federal income tax liability (before credits), plus the Earned Income Tax Credit (EITC), the Child Tax Credit (CTC), the refundable portion of the CTC (known as the Additional Child Tax Credit (ACTC)), and Supplemental Nutrition Assistance Program benefits.

Figure A-3 depicts annual net and gross income for a single parent with one child, as well as the Federal Poverty Level (right vertical axis), relative to full-time full-year work at the current \$7.25 per hour minimum wage level. Besides the \$7.25 per hour wage rate, marked at 1.00 on the figure, the \$12.66 per hour wage rate, marked at about 175% of current minimum wage level, several wage rates between the aforementioned wage rates are highlighted

Figure A-3. Net Annual Income Relative to Gross Earnings, Single Parent with One Child, 2014

Gross Earnings as a Multiple of Full-Time, Full-Year Earnings at the Current Federal Minimum Wage (\$7.25 per hour)



Source: Figure based on Congressional Research Service (CRS) calculations.

Notes: Gross earnings are based on 2,080 hours of work during the year. Net income includes gross earnings, less FICA taxes and regular federal income tax liability (before credits), plus the Earned Income Tax Credit (EITC), the Child Tax Credit (CTC), the refundable portion of the CTC (known as the Additional Child Tax Credit (ACTC)), and Supplemental Nutrition Assistance Program benefits.

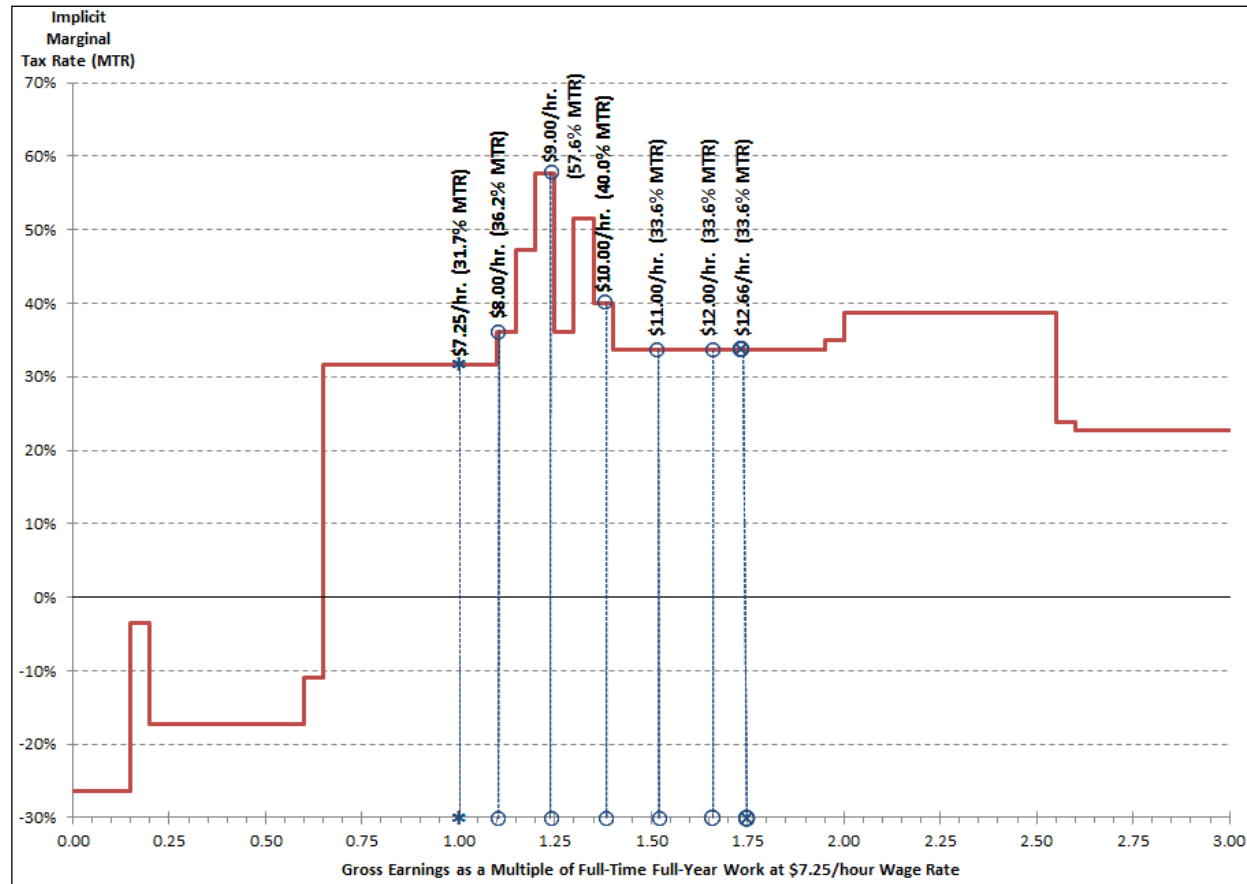
Figure A-2 and **Figure A-3**, above, provide a “behind the scenes view” that sets the stage for examining the effects of benefits and taxes on *implicit tax rates*, shown in **Figure A-4** and **Figure A-5**, below, which depict *net “marginal” implicit tax rates*, and *net “average” implicit tax rates*, respectively.

Implicit marginal tax rates, shown in **Figure A-4**, highlight the effects on net income resulting from a gain or loss in gross earnings over a specified range, or margin. They provide some indication of the possible incentives or disincentives to work and earn more, or to work or earn less, at specific earnings levels. For example, over broad ranges, sustained high implicit marginal tax rates may discourage individuals from working more hours, or working harder in hopes of securing a wage increase. In contrast, over broad ranges, low or even negative marginal tax rates, may help to encourage work. For example, at lower earnings ranges, the nominal EITC benefit increases with increased earnings, resulting in a net implicit marginal gain in net income that exceeds the marginal gain in gross earnings, which contribute to negative marginal implicit tax rates over a specified range. At higher income ranges, the nominal EITC is reduced as gross earnings increase, resulting in net income increasing to a lesser extent than an increase in gross earnings over a specified range, and thereby contributing to positive implicit marginal tax rates on earnings. *It should be noted that marginal tax rates would differ from those shown if a different margin were used.*³⁴

³⁴ Marginal tax rates calculated on the basis of 5 percent increments in gross equivalent earnings relative to a full-time (40 hours per week) full-year (52 weeks) worker (the equivalent of 2,080 annual hours of work earning) the current minimum wage \$7.25 per hour at 2,080 hours per year, which equates to a \$754 margin (i.e., $.05 * (\$7.25 * 2,080)$). A smaller margin could potentially result in higher “peaks” and “valleys” over some income ranges depicted in the figure, and a wider margin in flattening the “peaks” and “valleys” over some income ranges.

Figure A-4. “Implicit” Marginal Tax Rate (MTR) by Gross Earnings Level, Single Parent with One Child, 2014

Gross Earnings as a Multiple of Full-Time, Full-Year Earnings at the Current Federal Minimum Wage (\$7.25 per hour)



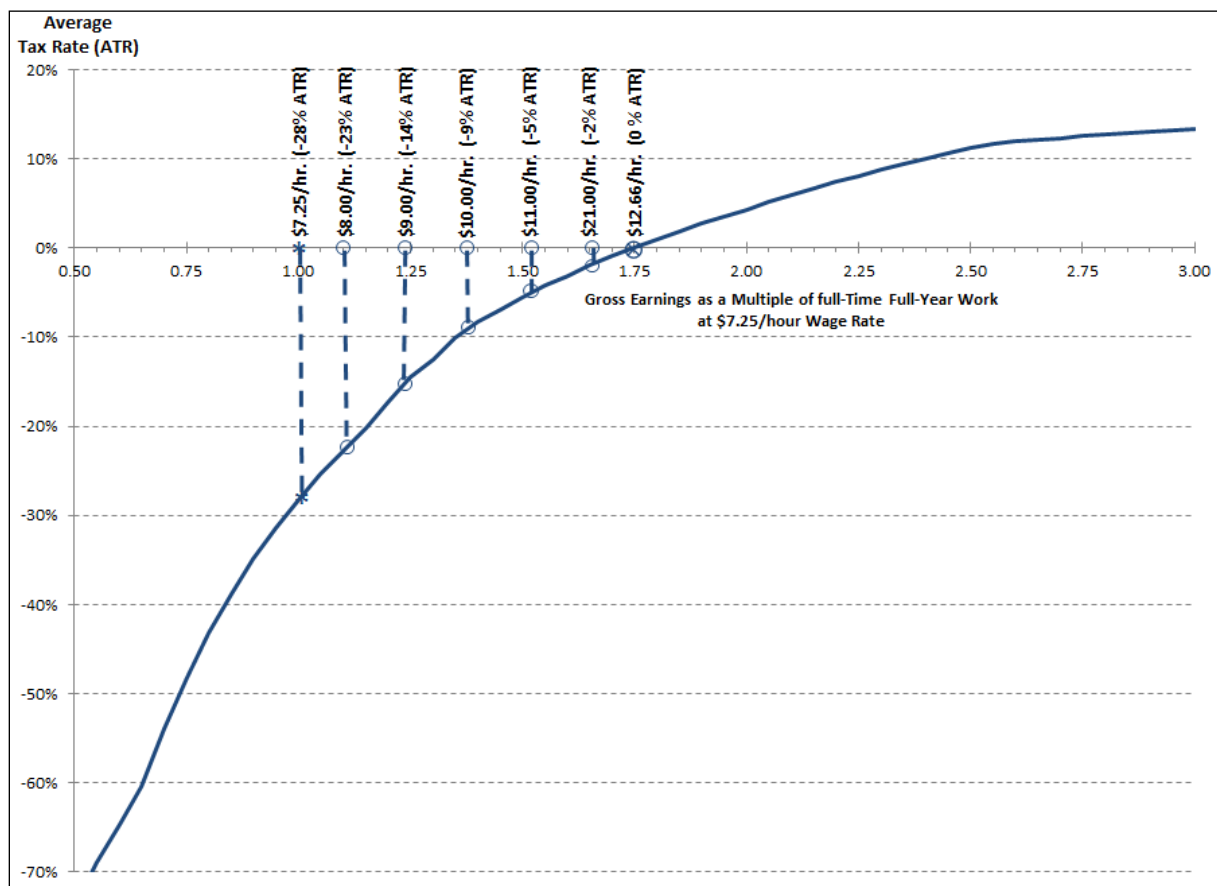
Source: Figure based on Congressional Research Service (CRS) calculations.

Notes: Gross earnings are based on 2,080 hours of work during the year. Net income includes gross earnings, less FICA taxes and regular federal income tax liability (before credits), plus the Earned Income Tax Credit (EITC), the Child Tax Credit (CTC), the refundable portion of the CTC (known as the Additional Child Tax Credit (ACTC)), and Supplemental Nutrition Assistance Program benefits. Marginal tax rates calculated on the basis of 5 percent increments in gross equivalent earnings relative to a full-time (40 hours per week) full-year (52 weeks) worker (the equivalent of 2,080 annual hours of work earning) the current minimum wage \$7.25 per hour at 2,080 hours per year, which equates to a \$754 margin (i.e., $.05 * (\$7.25 * 2,080)$). Marginal tax rates would differ if a different margin were used.

Average implicit tax rates, shown in **Figure A-5**, represent the gain in net income resulting from moving from a state of non-work (i.e., zero earnings) to work, at a specified level of gross earnings (expressed as multiples of full-time full-year work at the current law \$7.25 per hour wage rate). In this sense, average implicit tax rates have theoretical bearing on individuals' choices to work, or to not work, affecting labor market entry and exit. In contrast, marginal implicit tax rates theoretically have bearing on individuals' choices relating to hours or weeks of work. However, in that many (if not most) workers face work schedules with fixed hours, workers may have little flexibility vis-a-vis employers to adjust their hours, on margin, according to their preferences.

Figure A-5. Average “Implicit” Tax Rate by Gross Earnings Level, Single Parent with One Child, 2014

Gross Earnings as a Multiple of Full-Time, Full-Year Earnings at the Current Federal Minimum Wage (\$7.25 per hour)



Source: Figure based on Congressional Research Service (CRS) calculations.

Notes: Gross earnings are based on 2,080 hours of work during the year. Net income includes gross earnings, less FICA taxes and regular federal income tax liability (before credits), plus the Earned Income Tax Credit (EITC), the Child Tax Credit (CTC), the refundable portion of the CTC (known as the Additional Child Tax Credit (ACTC)), and Supplemental Nutrition Assistance Program benefits.

Author Information

Gene Falk
Specialist in Social Policy

David H. Bradley
Specialist in Labor Economics

Thomas Gabe
Specialist in Social Policy

Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS's institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.